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**343 SANSOME STREET**

OFFICE BUILDING

ENVIRONMENTAL IMPACT REPORT

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DRAFT EIR PUBLICATION DATE: JULY 3, 1986

DRAFT EIR PUBLIC HEARING DATE: AUGUST 7, 1986

DRAFT EIR PUBLIC COMMENT PERIOD: JULY 3 TO AUGUST 18, 1986

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DATE: July 3, 1986

TO: Distribution List for the 343 Sansome Street Project Draft EIR

FROM: Barbara W. Sahm, Environmental Review Officer

RE: Request for the Final Environmental Impact Report for the 343 Sansome Street Project

This is the Draft of the Environmental Impact Report for the 343 Sansome Street Project. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Summary of Comments and Responses" which will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the draft will automatically receive a copy of the Comments and Responses document along with notice of the date reserved for certification; others may receive such copies and notice on request or by visiting our office. This Draft EIR together with the Summary of Comments and Responses document will be considered by the City Planning Commission in an advertised public meeting and certified as a Final EIR.

After certification, we will modify the Draft EIR as specified by the Comments and Responses document and print both documents in a single publication called the Final Environmental Impact Report. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one rather than two documents. Therefore, if you receive a copy of the Comments and Responses document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Summary of Comments and Responses have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR to private individuals only if they request them.

If you want a copy of the Final EIR, please so indicate in the space provided on the next page and mail the request to the Office of Environmental Review within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.

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REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

To: Department of City Planning,  
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Please send me a copy of the Final EIR.

Signed: \_\_\_\_\_

Print Your Name and Address Below

CITY AND COUNTY OF SAN FRANCISCO  
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**343 SANSOME STREET**

OFFICE BUILDING

ENVIRONMENTAL IMPACT REPORT

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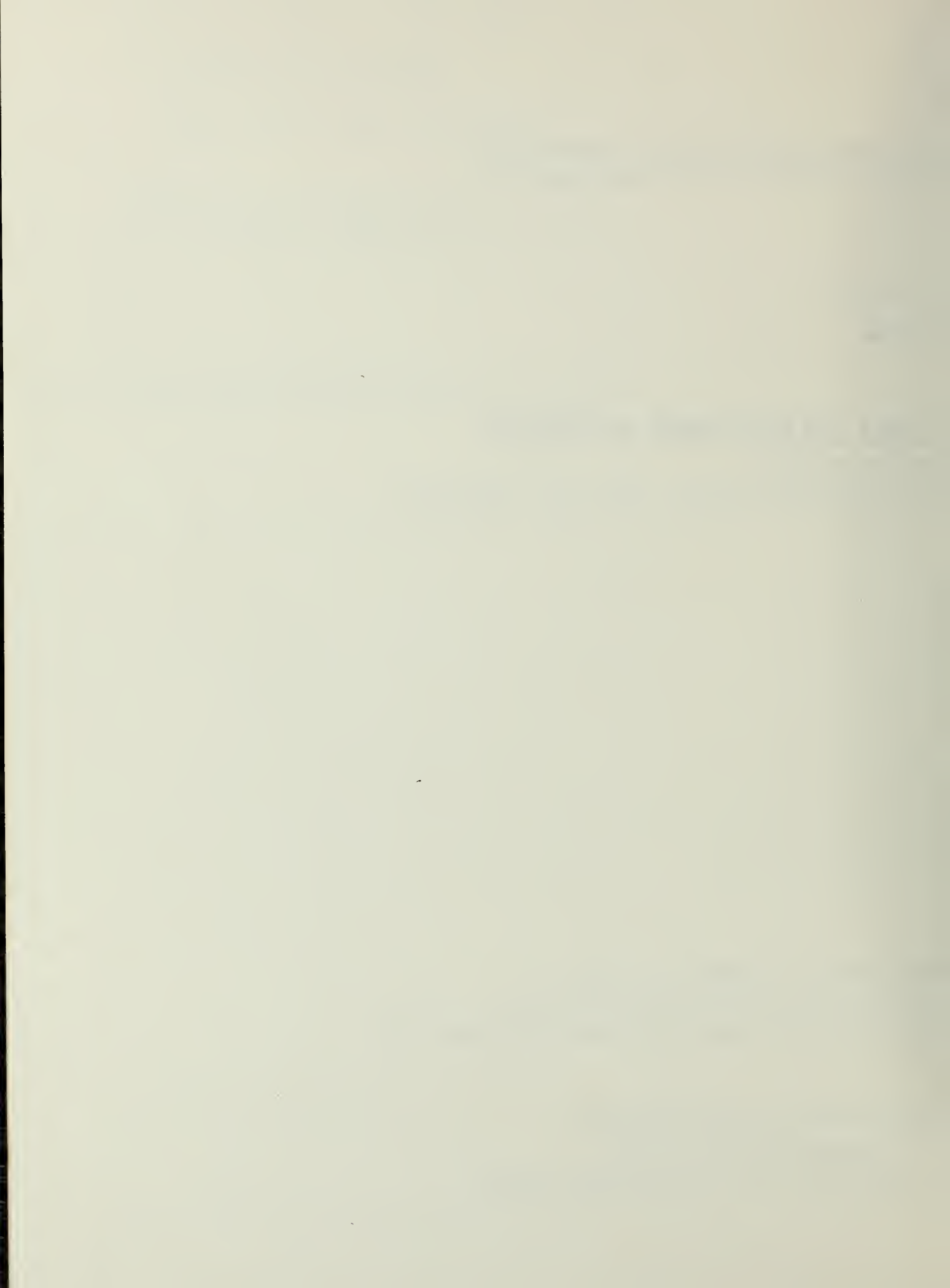


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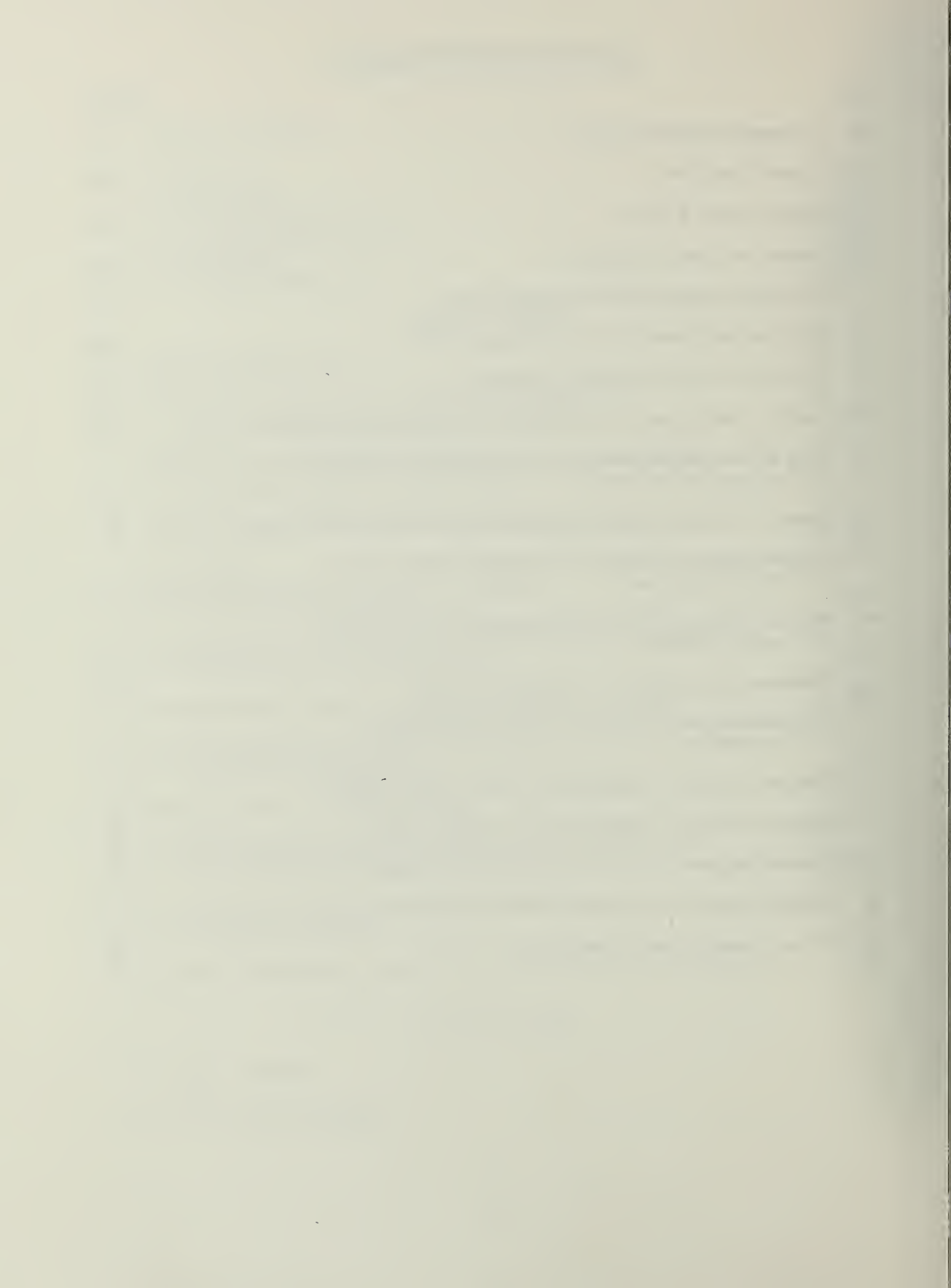
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## INTRODUCTION

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This introduction explains the process of tiering environmental impact reports, and describes tiering in relation to this Draft Environmental Impact Report for the proposed 343 Sansome St. project.

### TIERED ENVIRONMENTAL IMPACT REPORT

Where a prior environmental impact report (EIR) has been prepared and certified for a program, plan, policy or ordinance, the lead agency for a later project that meets specified requirements must examine significant effects of the later project on the environment, with exceptions, by using a tiered report whenever feasible as determined by the lead agency. (See California Public Resources Code, California Environmental Quality Act (CEQA), Sections 21093 and 21094, including amendments effective January 1, 1986.)

The law states the Legislative intent, finding and declaring that:

Tiering of environmental impact reports will promote construction of needed housing and other development projects by 1) streamlining regulatory procedures, 2) avoiding repetitive discussions of the same issues in successive environmental impact reports, and 3) ensuring that environmental impact reports prepared for later projects which are consistent with a previously approved policy, plan, program, or ordinance concentrate upon environmental effects which may be mitigated or avoided in connection with the decision on each later project; [and] that tiering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous EIRs.

The law directs that, where a prior EIR has been prepared and certified as noted above, the lead agency shall examine significant effects of the later project on the environment by using a tiered EIR, except that the report on the later project need not examine those

effects which were either mitigated or avoided as a result of the prior EIR, or examined at a sufficient level of detail as a result of the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions, or other means in connection with the approval of the later project.

### 343 SANSOME STREET

A tiered environmental impact report has been prepared, and is presented herein, for the proposed 343 Sansome St. project pursuant to Sections 21093 and 21094 of CEQA. This EIR is tiered from the EIR for the Downtown Plan (EE81.3, Final EIR certified October 18, 1984). The cumulative impacts of the development forecast in the downtown C-3 districts of San Francisco to the year 2000, including this project, are addressed in the Downtown Plan EIR. That cumulative analysis is not repeated in the EIR for this project.

The EIR for 343 Sansome St. identifies the project in terms of the cumulative impacts forecast in the prior EIR. (The Downtown Plan EIR may be examined at the Department of City Planning, 450 McAllister St., San Francisco; the San Francisco main library; and various branch libraries.)

The 343 Sansome St. EIR analyzes project-specific impacts. It discusses potentially significant effects of the project that were not examined in the Downtown Plan EIR and includes applicable mitigation measures for site-specific effects.

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## I. SUMMARY

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### A. PROJECT DESCRIPTION

The project sponsor, Gerald D. Hines Interests, proposes to construct a 255-ft. tall (including penthouse), 19-story office building, with two basement levels. The project architect is John Burgee Architects, with Philip Johnson, of New York.

The 23,901-sq. ft. site includes Lots 2, 24, 27, and 28 of Assessor's Block #239. The site is on the southwest corner of the intersection of Sacramento and Sansome Sts. and is bounded by Sacramento, Sansome, Halleck, and Leidesdorff Sts. The site contains the 13-story 343 Sansome St. office building, the one-story 345 Sansome St. office building, and the four-story 525 Sacramento St. parking garage. The 345 Sansome St. and 525 Sacramento St. buildings would be demolished with the project. The north and west walls of the 343 Sansome St. building would be removed; the south and east facades of the building would be retained and restored as part of the project. The structural columns and floors would be retained. The remainder of the interior would be redone.

As calculated under the Planning Code, the project would contain about 307,000 gross square feet (gsf) of floor area, excluding all non-office area. This would result in a Floor Area Ratio (FAR), the ratio of the gross floor area of all the buildings on a lot to the area of the lot, of about 12.8:1 for the 23,901-sq.-ft. development site (gross floor area excludes retail, parking, and mechanical space). The project would use about 78,800 gsf of Transferred Development Rights (TDR) from as yet undetermined sources. The overall FAR for the development and contributory lots would be 9:1 or less. Pedestrian access to the building would be from Sansome and Sacramento Sts. and vehicular access would be from Halleck St. The basement levels would contain storage, loading space, and parking (100 spaces). The ground floor would contain lobby, retail, vehicle ramps, and loading docks. Floors two through 18 would contain office space. The 19th level would be a mechanical penthouse.

The building would contain about 307,000 gsf of office space, 11,000 gsf of retail space, 12,600 gsf of mechanical space, and about 40,500 gsf of parking (about 100 spaces) and storage space and two freight loading and four service vehicle loading spaces. Changes in



floor area for the site would include a net increase of about 225,000 sq. ft. of office, a net increase of 10,500 sq. ft. of retail, and a net decrease of up to 2,500 sq. ft. of parking area, with a net decrease of parking spaces from about 210 to 100. The project would retain about 74,400 sq. ft. of office space in the existing 343 Sansome St. Building. There is about 7,600 gsf of office space in the 345 Sansome building, to be demolished. The new and old buildings would be structurally linked, including seismic reinforcement of the existing building. On levels one through 13, floors would be continuous between the old and new structures.

The project would contribute to the improvement of Leidesdorff St., designated on a pedestrian/service street in the Downtown Plan, between Sacramento and California Sts., and proposes to close it to vehicular traffic for use as a pedestrian mall between the Financial District and Commercial–Leidesdorff Conservation District, in fulfillment of its open space requirement.

The project would require approval under Sections 309 and 321 of the Planning Code. The project would require allowable exceptions for the maximum diagonal dimension of the lower tower, which at 201 ft., would exceed the permitted length of 190 ft. by 11 ft. for the average floor size of the lower tower, which at 19,340 sq. ft., would exceed the permitted maximum of 17,000 sq. ft. by 2,343 sq. ft.; for the upper tower maximum length of 160 ft. (130 ft. is permitted) and maximum average diagonal of 176 ft. (160 ft. is permitted). Parking space would be less than seven percent of gross floor area, and would thus be an accessory use not requiring Conditional Use authorization. Closure of Leidesdorff to vehicular traffic would require necessary approvals.

Demolition of the existing 345 Sansome St. and 525 Sacramento St. buildings would take about eight to 12 weeks. Construction would continue for about 68 weeks, a total expected 20-month construction period.

## B. MAIN ENVIRONMENTAL EFFECTS

### LAND USE AND ZONING

The site is in the C-3-0 (Downtown Office) Use District and a 300-S Height and Bulk District. The project would replace existing office, retail and parking uses at the site



with similar uses at a greater intensity, except that the number of parking spaces would be less than now on-site. The proposed project uses would be similar to land uses in the site vicinity, which is characterized by office buildings with ground-floor parking and office-support retail facilities.

As required by the Planning Code, the project would provide open space and art work, and would provide child care space through an in-lieu fee. As stated above, the project would comply with height limits. Under Planning Code Section 309, Permit Review in the C-3 Districts, the project would require exceptions to bulk requirements (allowable under Section 272(a)1), and to exceed a maximum curb cut of 30 ft. for service vehicle access.

## HISTORIC, ARCHITECTURAL AND CULTURAL RESOURCES

The 343 Sansome St. Building on the project site is rated Category III (contributory building), in the downtown controls. The west- and north-facing exterior walls of the existing building would be removed, and the structural frames of the existing and new buildings would be linked. The east- and south-facing walls, including terra cotta facade detail, would be retained and repaired as necessary.

The project site is located in what was the 1849 San Francisco waterfront area. Archival research indicates that artifacts from several periods could be encountered at the site. Ships and goods associated with commercial trade of the Spanish-Mexican period may exist beneath fill at the site. Potential artifacts from the Gold Rush period which could be found at the site include wooden ships, (including the store-ship Thomas Bennett, whose final disposition is not known), gold-mining implements, hotel artifacts, and building foundations. Hotel furnishings, bottles, and other commercial objects from the City Building Period could also be encountered during project excavation. Such a find could be considered of archeological and historical significance.

## URBAN DESIGN

The 343 Sansome St. building street facades (on Sansome and Halleck Sts.) would not be altered by the project. The double-height round arch openings in the base of the new tower are intended to relate to arched elements of nearby development. The facade of

the new tower would include projecting bay windows above the two-story base, and columns, round windows and a cornice at the 18th floor. Floors three to six of the base (as defined by the bulk guidelines) and seven to 13 of the lower tower would comprise the building middle which, with floors one and two, would have continuous floors between the existing 343 Sansome building and the new tower.

The 19-story (including mechanical penthouse) new tower would be of similar height or taller than existing structures on the block, such as the 20-story Bank of California tower to the south and the 12-story Wells Fargo building to the west. The new tower would not block any views of the Bay or other open space now observed from public areas. It would partially obstruct views of Nob Hill viewed along Sacramento St. from outdoor open space on the third level of Four Embarcadero Center.

## SHADOW AND WIND

The project would shade the southeast corner of the western portion of Maritime Plaza (about 3% of the western half of the plaza), adjacent to the Alcoa Building. New shadow would occur for periods from about three to 15 minutes at about 3:50 p.m. on January 15 to January 30 and at about 3:30 p.m. on November 12 to November 27). At those dates and times, the western half of Maritime Plaza would be about 97% shaded by existing and approved buildings. Thus, the project would complete the shadowing of the western half of the plaza from three to 15 minutes earlier in the day than under existing conditions. Maritime Plaza is under the jurisdiction of the Recreation and Park Commission. Under Proposition K, the Park Shadow Ban initiative, projects casting new shadow on Recreation and Park open space must be disapproved by the City Planning Commission unless both commissions find the shading would not have an adverse effect on use of the property or that the effect would be insignificant.

The project would cast new shadow on streets, sidewalks and roofs in the project area. The project would add new shadow to the steps of the former Federal Reserve Bank building, northeast of the site, during mid-afternoon hours in spring and fall. It would not shade the steps at noon at any time of year. The steps are used as a lunch-time sitting area.

A wind tunnel test for the project indicates that existing winds do not exceed the 11 mph pedestrian comfort criterion established in the Downtown Plan. The project would cause

wind speeds to increase at seven test locations (by one to two mph), to remain the same at six locations, and to decrease at 11 locations (by one to two mph). With the project in place, winds in the vicinity would not exceed the 11 mph pedestrian comfort criterion. The seven mph sitting comfort criterion would apply to the steps of the former Federal Reserve Bank building, used as a lunch-time sitting area. The project would reduce wind speeds at this location from seven mph to six mph.

## TRANSPORTATION

A sidewalk detour and curb lane closure on Halleck and Leidesdorff Sts. would be necessary during project construction (about 20 months). Demolition and excavation (separate phases) would each generate an average of 15 truck round trips per day. Construction truck traffic would be limited to the period between 9:00 a.m. and 3:30 p.m. Trucks loading on Halleck and Leidesdorff Sts. may interfere with other vehicles using these alleys.

The project would generate about 5,600 net new person trips per day. About 780 new outbound trips would occur during the p.m. peak period, 485 of these during the p.m. peak hour.

The project would provide about 100 short-term parking spaces and would result in a net decrease of about 110 spaces (the existing 210 spaces on the site are currently fully occupied). Estimated equivalent daily parking demand from the project would be about 205 spaces, resulting in an unmet parking demand as a result of the project of about 315 spaces (205 space net new project demand plus 210 existing spaces equal 415 spaces, minus 100 spaces with project equals 315 spaces). The reduction of parking spaces at the site would result in a decrease in travel at intersections near the site.

The proposed project would generate about 245 new pedestrian trips on sidewalks and crosswalks in the vicinity of the site during the noon 15-minute peak period and about 170 new pedestrian trips during the p.m. 15-minute peak period. These increases would not change the pedestrian levels of service of the sidewalks and crosswalks, except at the crosswalk across Sansome St., where the existing unimpeded conditions would become impeded during the p.m. peak period. The project sponsor would contribute to the improvement of Leidesdorff Street as an exclusive pedestrian way.



The project would add about 195 outbound trips to Muni, 115 outbound trips to BART, and about 95 new outbound trips to other transit agencies during the p.m. peak period. The project would generate an annual cost deficit to Muni of about \$24,300, which would be less than the project's contributions to the General Fund, the Transit Development Impact Fee, and sales tax revenues. The project would result in an annual net operating deficit to BART of about \$166,900. BART's operating deficit per passenger is likely to decline in real terms as planned service improvements become operational in the future.

The EIR for the Downtown Plan (EE81.3, Final EIR certified October 18, 1984, available for review at the Department of City Planning, the main San Francisco library and various branch libraries) forecast employment and development in the downtown C-3 districts to the year 2000, and evaluated the impacts of this forecast employment and development. Project effects fall within this forecast. The summary statements below, and those in the Impacts Chapter regarding cumulative development, are drawn from that EIR. The lengthy and detailed analysis presented in the prior EIR will not be repeated in this EIR for the 343 Sansome St. project. The relevant material in the Downtown Plan EIR is summarized and incorporated by reference in the appropriate section of the EIR, by topic.

The transit demand from the project would represent about 0.2% of the total transit demand in the year 2000. Cumulative development under the Downtown Plan to the year 2000 in conjunction with planned capacity increases of transit carriers would be expected to cause the following changes in transit levels of service during the peak period: Muni Northwest Corridor, E to D; BART Transbay, F to E; AC Transit, C to D; Golden Gate Ferry, B to A; Tiburon Ferry, A to B; and Caltrain, B to C.

With cumulative development by the year 2000, sidewalk and crosswalk operations would be in the impeded range during both the noon and p.m. peak periods for all locations studied for the project except for the Sacramento St. sidewalk, which would be in the unimpeded range during the p.m. peak period. The project alone would not change the conditions of any analysed sidewalks or crosswalks, except for the crosswalk across Sansome St. which would change from unimpeded to impeded during the p.m. peak period.

Cumulative development, including that from the proposed project, by the year 2000 would be expected to worsen existing Level of Service (LOS) E conditions at the

intersection of Mission and Beale Sts. to LOS F, and worsen existing LOS C at the intersection of Clay and Battery Sts. to LOS D. Project traffic alone would not cause the LOS at either intersection to change.

The project would represent about 0.2% of total outbound regional auto demand on major auto corridors (bridges and freeways) in the year 2000.

The C-3 District would generate demand for approximately 58,000 equivalent daily parking spaces in the year 2000 under the Downtown Plan, an increase of 28% from 1984. Short-term demand would continue to represent about 25% of the total demand. The project parking demand would represent about 0.2% of the total demand from the C-3 District. The parking supply has been assumed to be about 51,000 spaces. There would be a parking deficit of about 6,000 spaces in the year 2000 if vehicular demand occurs as projected. Alternatively, if the goals of the Downtown Plan are achieved, total parking demand in the year 2000 would increase by about six percent over 1984 and there would not be a parking deficit.

The City Planning Code would require, and the project would provide the equivalent of, four loading spaces for the project. Two loading docks would be located at ground-level and four van loading spaces would be located in the project basement-level garage, all with access from Halleck St.

## AIR QUALITY

Project-related vehicular traffic would add to cumulative regional pollutant emissions. Project-related traffic would contribute about one percent of the total incremental emissions resulting from C-3 development projected in the Downtown Plan EIR. Emissions of total suspended particulates (TSP) generated by the project and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility.

Project emissions alone would not cause any standards to be violated. Currently, the eight-hour CO standard is estimated to be violated at the intersections of California and Battery Sts. and Battery and Clay Sts. However, local CO concentrations are predicted to be less in 2000 than in 1984, and would not violate the standards at these two

intersections, because the effects of emission controls on new vehicles would offset increases in traffic volumes and congestion.

## CONSTRUCTION NOISE

Project construction would take place in about 20 months, and would increase noise levels in surrounding areas. Highest average construction noise levels experienced in offices and stores near the site could interfere with speech. During excavation and exterior finishing, noise levels in office buildings in the project vicinity could reach as high as 74 dBA with windows open and 59 dBA with windows closed. During pile-driving, noise levels in office buildings could reach as high as 90 dBA with windows open and as high as 75 dBA with windows closed. Construction noise effects would not be expected to disturb residents of apartment buildings about 500 ft. west and northwest of the site.

Vibrations from the impact during pile-driving would be felt in adjacent and nearby buildings. These vibrations have been found to be more disturbing to some people than high noise levels.

## EMPLOYMENT

The project would accommodate about 1,000 net new employees in the C-3 District. There would be a net increase of about 945 office employees, a net increase of about 30 retail employees and a net increase of about 25 building maintenance/security employees.

## GROWTH INDUCEMENT

Increases in downtown office space from the proposed project would contribute to growth of local and regional markets for housing, goods and services. Although employment growth would not be reflected directly in increases in demand for housing and City services to residents, it is expected that some downtown workers would want to live in San Francisco, intensifying the demand for housing, retail goods and services. The project would be built in a developed urban area and would not require any expansion of the municipal infrastructure not already under consideration.



### C. MITIGATION MEASURES

Major measures that would mitigate potentially significant environmental effects include the following:

#### MEASURES PROPOSED AS PART OF THE PROJECT

- During the construction period, construction truck movement would be permitted only between 9:00 a.m. and 3:30 p.m., to minimize peak-hour traffic conflicts and to accommodate queueing of Muni buses prior to the peak hours. The project sponsor and construction contractor would meet with the Traffic Engineering Division of the Bureau of Engineering of the Department of Public Works, the Fire Department, Muni and the Department of City Planning to determine feasible traffic mitigation measures to reduce traffic congestion during construction of this project and other nearby projects. To minimize cumulative traffic impacts due to lane closures during construction, the project sponsor would coordinate with construction contractors for any concurrent nearby projects that are planned for construction or later become known.
- The project sponsor would contribute funds for maintaining and augmenting transportation services in an amount proportionate to the demand created by the project, as provided by the Board of Supervisors Ordinance Number 224-81. Should said Ordinance be declared invalid by the courts, the project sponsor has agreed to participate in any subsequent equivalent mitigation measures adopted by the Planning Commission or the City in-lieu thereof, which would apply to all projects similarly situated.
- The project sponsor shall: 1) participate with other project sponsors and/or the San Francisco Parking authority in undertaking studies of the feasibility of constructing an intercept commuter parking facility in a location appropriate for such facility to meet the unmet demand for parking for those trips generated by the project which cannot reasonably be made by transit, and 2) participate with other project sponsors and/or the Municipal Railway in studies of the feasibility of the establishment of a shuttle system serving the project site and the parking facility.

- As recommended by the Environmental Protection Element of the San Francisco Master Plan, an analysis of noise reduction measures would be prepared by the project sponsor, and recommended noise insulation features would be included as part of the proposed building.
- The project sponsor would require that the construction contractor pre-drill holes for piles, in order to minimize noise and vibration from pile driving. The actual pounding from pile driving would occur during a five- to eight-minute span per pile. The project sponsor has agreed to limit pile driving to the hours resulting in disturbance to the fewest number of neighboring uses. For nighttime pile driving, this would require a work permit from the Director of Public Works, pursuant to San Francisco Noise ordinance Section 2907(c). The project sponsor would schedule pile driving so as to disturb the fewest people.

#### MEASURES THAT COULD BE IMPLEMENTED BY PUBLIC AGENCIES

- Through the San Francisco Committee for Utility Liaison on Construction and Other Projects (CULCOP), PG&E could coordinate work schedules with other utilities requiring trenching, so that street disruption would take place at off-peak hours and on weekends, and at the same time the street would be opened for construction of the project.
- The City could implement the transportation improvements described in the Downtown Plan. Cumulative transportation impacts within San Francisco would be reduced by the improvements, and, to the extent that San Francisco could influence transportation improvements recommended by the Plan for areas outside the City, regional cumulative impacts caused by downtown growth would also be reduced.

#### D. ALTERNATIVES TO THE PROPOSED PROJECT

##### ALTERNATIVE A: NO PROJECT

This alternative would entail no change to the site. The proposed project would not be built there. The existing 525 Sacramento St. parking garage and 345 Sansome St. office building would be retained, rather than demolished for the project. The 343 Sansome St.

building would not be seismically upgraded and restored; its north and west walls would not be removed.

This alternative could result in the development of other office space, possibly a high-rise building comparable to the project, at another location. Alternative development within the San Francisco downtown area would result in some of the same (or similar) impacts as described for the project. The effects of development would depend largely on the location chosen and cannot be determined accurately. This alternative would preserve the option to develop a similar or different type of building on the site in the future.

#### ALTERNATIVE B: NO TRANSFER OF DEVELOPMENT RIGHTS, 9:1 FAR

This alternative considers a building without Transferred Development Rights (TDR), with an FAR of 9:1, the basic allowable FAR. This alternative would include about 215,110 gsf of office space (132,110 gsf net new), as compared to 307,000 gsf (225,000 gsf net new) for the project. Lobby, retail, and parking space would be the same as for the project. The building would be 177 ft. or 13 stories tall, compared to 255 ft. and 19 stories with the project.

This alternative would retain the south and east facades of the existing 343 Sansome St. building, and seismically upgrade the building, as would the project. Transportation, and air quality, energy, and shadow effects would be proportionately less than with the project; it would not shade any of the western half of Maritime Plaza in January and November. As the alternative would be three stories shorter than the project, it would be less visible. Effects on cultural resources, urban design, and wind would be similar to the project.

#### ALTERNATIVE C: NO NEW SHADOW ON MARITIME PLAZA

This alternative would be a new tower which would not add shade to Maritime Plaza between the hours of one hour after sunrise and one hour before sunset at any time of year, the times restricted by Proposition K, the Park Shadow Ban initiative. The alternative would be 16 stories and 216 ft. tall (to the top of the penthouse), compared to 19 stories and 255 ft. for the project. Total office floor area would be 271,900 gsf, compared to 307,000 for the proposed project, or 180,900 gsf net new office



space, compared to 225,000 gsf for the project. Retail, parking and loading and other design features would be the same as the project.

Effects on transportation, air quality energy and employment would be about 16% less than those of the project. Wind effects would be similar, and no violation of wind speed criteria would be expected to occur. This alternative, which would be shorter than the project, would not add shade to up to 3% of the western half of Maritime Plaza for from three to fifteen minutes in late afternoons for two weeks in January and November. This portion of Maritime Plaza would continue to be about 97% shaded by existing and approved buildings at these times. Effects on cultural resources would be the same as the project.

#### ALTERNATIVE D: NO EXCEPTION TO THE PLANNING CODE: BULK

This alternative would be a new tower which would not require exceptions to bulk requirements under the Downtown Plan. Office space under this alternative would be 307,000 gsf, the same as for the project. The alternative would be 21 stories and about 280 ft. tall, compared to 19 stories and 255 ft. for the project. Retail, parking and loading, and other design features would be the same as the proposed project.

As would the project, this alternative would retain the south and east facades of the existing 343 Sansome St. building and seismically upgrade the building. Visual and noise effects would be similar to those of the project. Transportation, air quality, and energy effects would be the same for the project. The alternative would shade up to 3% of the western half of Maritime Plaza for about four weeks in late afternoons in November and January and February, compared to about two weeks for the project because of the alternative's greater height. Effects on cultural resources would be the same as for the project.

#### ALTERNATIVE E: NEW SHADOW ON MARITIME PLAZA AND NO EXCEPTION TO THE PLANNING CODE: BULK

This alternative would be a new tower which would not add shade to Maritime Plaza between the hours of one hour after sunrise and one hour before sunset at any time of year, the times restricted by Proposition K, the Park Shadow Ban initiative, and would comply with Planning Code lower tower and upper tower bulk requirements. The

alternative would be 16 stories and 216 ft. tall (to the top of the penthouse), compared to 19 stories and 255 ft. for the project. Total office floor area would be 255,000 gsf, compared to 307,000 for the proposed project, and 178,000 gsf net new office space, compared to 225,000 gsf for the project. Other retail, parking and design features of the alternative would be similar to those of the project.

Net effects on transportation, air quality energy and employment would be about 21% less than those of the project. Wind effects would be similar, and no violation of wind speed criteria would be expected to occur. This alternative, which would be shorter than the project, would not add shade to up to 3% of the western half of Maritime Plaza for from three to fifteen minutes in late afternoons for two weeks in January and November. This portion of Maritime Plaza would continue to be about 97% shaded by existing and approved buildings at these times. Effects on cultural resources would be the same as the project.

#### ALTERNATIVE F: NO PARKING

This alternative would have no vehicle parking spaces; other uses, building dimensions and floor areas would be as for the project. The alternative would have one basement level, compared to two for the project.

The proposed project would reduce parking on the site by about one-half, with a consequent reduction in traffic from the site at several local intersections. This alternative with no on-site parking would result in even less traffic at local intersections. The unmet parking demand of the alternative would be 100 equivalent spaces greater than that of the project.

This alternative would have less potential for disturbance of any subsurface cultural resources, as one basement level would be needed for the new tower, rather than two. All other impacts of this alternative would be the same as those of the project.

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## II. PROJECT DESCRIPTION

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### A. PROJECT SPONSOR'S OBJECTIVES

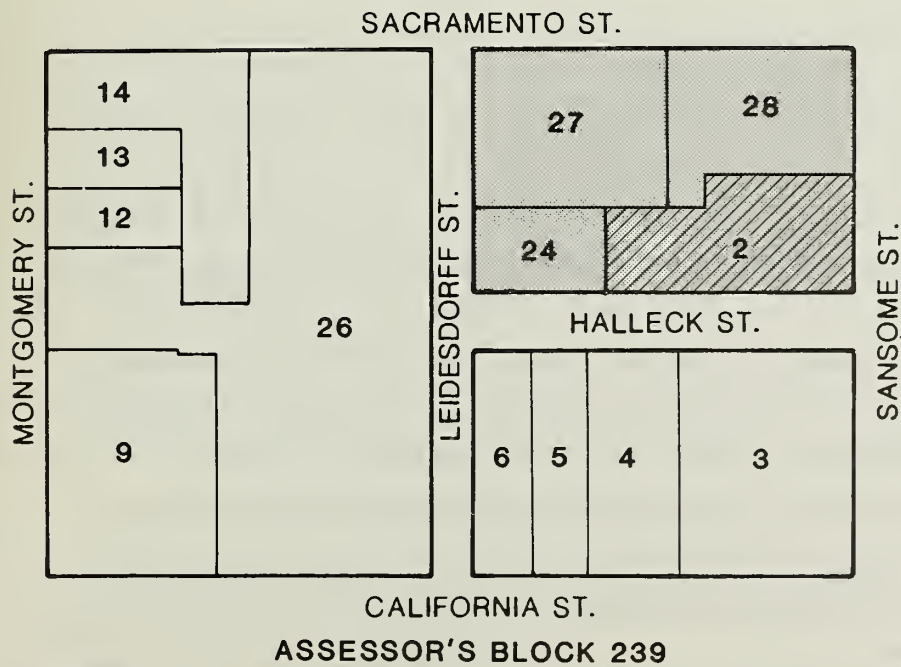
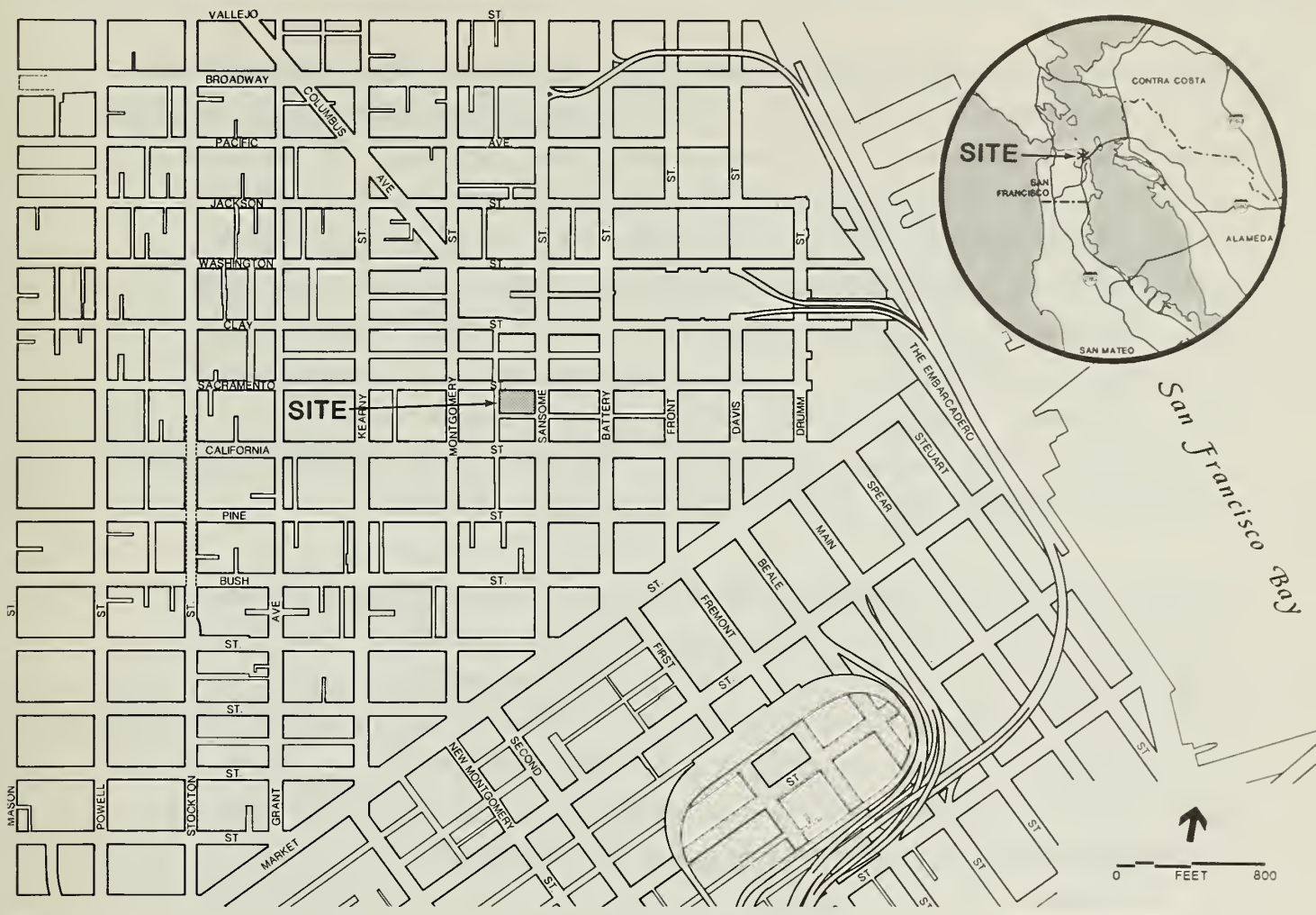
Gerald D. Hines Interests proposes to construct a 19-story, 255-ft.-tall office and retail building on the southwest corner of the intersection of Sacramento and Sansome Sts., incorporating the existing adjacent 13-story, 343 Sansome St. building. The project architect is John Burgee Architects, with Philip Johnson of New York. The project sponsor's objectives are to develop high-quality office, retail and parking space at a prime location in the center of the financial district; to develop a new building of landmark architectural quality which would be compatible with the adjacent 343 Sansome St. building, highly rated for architectural quality; and to retain and rehabilitate the historic 343 Sansome St. building.

### B. PROJECT LOCATION



The proposed project would be located at 343 Sansome St., at the southwest corner of Sansome and Sacramento Sts. in the City and County of San Francisco, and would occupy Lots 2, 24, 27 and 28 of Assessor's Block 239. This block is bounded by Sacramento St. on the north, Sansome St. on the east, California St. on the south, and Montgomery St. on the west (see Figure 1, p. 17). The 23,901-sq.-ft. site is bounded by Sacramento, Sansome, Halleck and Leidesdorff Sts. The site is adjacent to and north of the Bank of California banking temple and tower. Diagonally across the intersection of Sansome and Sacramento Sts. from the project site is the former Federal Reserve Bank building, which is to be rehabilitated as part of the Embarcadero Center West development. The project would replace the four-story 525 Sacramento St. parking garage and the one-story 345 Sansome St. office building. The 343 Sansome St. building south and east facades would be retained and rehabilitated as part of the project. The columns and floor would be retained, and the remainder of the interior would be redone.

The site is in the C-3-0 (Downtown Office) Use District. The basic Floor Area Ratio (FAR) is 9:1. The 300-S Height and Bulk District for the site allows for a maximum





### LEGEND

-  PROJECT SITE  
ASSESSOR'S BLOCK 239  
LOTS 2, 24, 27 and 28
-  343 SANSOME - TO BE  
RETAINED AND INCORPORATED  
INTO NEW STRUCTURE
- 2** LOT NUMBER



343 SANSOME

FIGURE 1  
PROJECT LOCATION

SOURCE: ESA

height of 346 ft., including an optional upper-tower extension of 10% of building height and a 16-ft.-high mechanical penthouse. The S-bulk controls apply to four parts of a new building: base, lower tower, upper tower and upper-tower extension. For the S-bulk district, the general principle is reduced bulk with increased height. In the S District, the maximum length and maximum diagonal dimensions of the lower tower are 160 ft. and 190 ft., respectively. The maximum average floor size for the lower tower is 17,000 sq. ft., and the maximum floor size is 20,000 sq. ft. For the upper tower, the bulk controls are: a maximum length of 130 ft., a maximum average diagonal dimension of 160 ft., a maximum average floor size of 12,000 sq. ft., and a maximum floor size of 17,000 sq. ft. Allowable exceptions to these bulk maximums are provided in Section 270 and 272 of the Planning Code, subject to approval under Section 309.

The project would require allowable exceptions for the maximum diagonal dimension of the lower tower, which at 201 ft. would exceed the permitted length of 190 ft. by 11 ft.; for the average floor size of the lower tower, which at about 19,343 sq. ft., would exceed the permitted maximum of 17,000 sq. ft. by about 2,343 sq. ft.; for the maximum length of the upper tower, which at 160 ft. would exceed the maximum permitted length of 130 ft. by 30 ft.; and for maximum average diagonal of the upper tower, which at 176 ft. would exceed the maximum permitted length of 160 ft. by 16 ft.

### C. PROJECT CHARACTERISTICS

Project characteristics are summarized in Table 1 on p. 19. The 255-ft.-tall tower would be a 19-story building including a 16-ft.-tall mechanical penthouse. The existing 13-story building to be incorporated into the new tower is 184 ft. tall. The new construction would have two subsurface levels; the uppermost would be continuous with the existing basement of 343 Sansome St. building. As calculated under the Downtown Plan, the project would contain about 307,000 gross sq. ft. (gsf) (232,600 gsf of new construction and 74,400 gsf of office in the existing 343 Sansome St. building to be retained) of floor area, excluding all non-office area. The net new office space which would be constructed would be 225,000 gsf (232,600 gsf minus 7,600 gsf in the existing 345 Sansome St. building to be demolished.)/1/ This would result in a Floor Area Ratio (FAR), the ratio of office floor area (excluding retail, parking and mechanical space) to site size, of about 12.8:1 for the 23,901-sq.-ft. development site.



TABLE 1: PROJECT CHARACTERISTICS

| <u>Proposed<br/>New Construction</u>               | <u>Stories</u> | <u>Height and Bulk Measurements (ft.)</u> |   |                             |
|--|----------------|---|---|-----------------------------|
|  |                |   | <u>Allowable Under<br/>Downtown Plan/<br/>Planning Code</u> | <u>Proposed<br/>Project</u> |
| Parking (subsurface)                               | 2              | Height                                    | 346 ft./a/  | 255 ft.                     |
| Retail/Lobby                                       | 1              | Length (lower tower)                      | 160 ft.   | 160 ft.                     |
| Office   | 17             | Length (upper tower)                      | 130 ft.   | 160 ft.                     |
| Mechanical Penthouse                               | 1              | Diagonal (lower tower)                    | 190 ft.   | 201 ft.                     |
| Total Above-Ground                                 |                | Diagonal (upper tower)                    | 160 ft.   | 176 ft.                     |
| Stories  | 19             | FAR (site size of<br>23,901 s.f.)         | 9:1 plus<br>TDR up to 18:1/b/                               | 12.8:1                      |
| <u>Proposed Floor Area<br/>of New Construction</u> |                | <u>Area Applicable<br/>to FAR (gsf)</u>   | <u>Total Gross<br/>Floor Area (gsf)</u>                     |                             |
| Subsurface parking and storage                     |                | 0   | 40,500  |                             |
| Lobby, retail and other ground-floor uses          |                | 0 /c/                                     | 23,900 /d/  |                             |
| Offices (New, floors 2–18)                         |                | 232,600                                   | 232,600   |                             |
| (Existing, occupied floors 2–13)                   |                | 74,400                                    | 74,400  |                             |
| TOTAL OFFICE                                       |                | 307,000                                   | 307,000   |                             |
| Mechanical (on floors 2–18)                        |                | 0 /c/                                     | 6,400   |                             |
| Mechanical penthouse                               |                | 0 /c/                                     | 6,200   |                             |
| TOTAL PROJECT                                      |                | 307,000                                   | 384,000   |                             |

/a/ The project site is located in a 300-S Height and Bulk District. Under Planning Code Section 263.9, additional height of up to 10% (to 330 ft.) may be allowed, provided the volume of the upper-tower extension is reduced. In addition, a 16-ft.-high mechanical penthouse is allowed above 330 ft. in height by Section 260.b.1.(A).

/b/ To permit the FAR on the development site to exceed 9:1, about 78,800 gross sq. ft. of transferable development rights (TDR) would be transferred from an as yet unidentified site, under Section 128 of the City Planning Code. The Floor Area Ratio (FAR) of the combined development and preservation lots would be less than 9:1.

/c/ Under Section 102.8(b) 4, 12 and 13, gross floor area in the C-3-0 district is defined to exclude convenience, retail and personal service, pedestrian circulation, and building service space located on the ground floor and mezzanine levels (not to exceed 75% of ground-floor interior and open space areas), and mechanical and building storage space.

/d/ The project would include about 11,000 gross sq. ft. of retail space on the ground floor.

/e/ The existing 343 Sansome St. building is about 74,400 gsf. The existing office space on the site is 82,000 gsf (including the 7,600 gsf 345 Sansome St. building). The net increase with the project would be 225,000 gsf.

SOURCE: Environmental Science Associates, Inc., and Gerald D. Hines Interests

The two basement levels would contain storage, four service loading spaces, and parking. The ground floor would contain lobby, retail and food service areas, vehicle ramps, and two truck loading docks. Floors two through 18 would be office. The 19th level would be a mechanical penthouse.

Pedestrian access to the project would be from Sansome St. through the existing 343 Sansome St. entrance, a second entrance on Sansome St. at the new tower, a new entrance on Sacramento St., and through retail uses fronting Sansome, Sacramento and Halleck. The project frontage on Leidesdorff would also have street-level retail uses. Vehicle and service access would be from Halleck St. As part of the project, Leidesdorff St. between California and Sacramento Sts. (the site adjoins Leidesdorff from Halleck to Sacramento) would be improved to serve as an exclusive pedestrian way between the Financial District and the Commercial-Leidesdorff Conservation District.

The project (the existing 343 Sansome building and the new tower) would include about 307,000 gsf of office space, 11,000 gsf of retail space, 12,600 gsf of mechanical and storage space (including 6,400 gsf on floors two through 18 and 6,200 gsf in a mechanical penthouse), up to 40,500 gsf of parking space (about 100 stalls) and basement service space, and two freight loading plus four service vehicle loading spaces. Total net changes in floor area for the site would be as follows: There would be an increase of about 225,000 sq. ft. of office. (The project would retain about 74,400 sq. ft. of office space in the existing 343 Sansome St. building. The 345 Sansome St. building, to be demolished, contains 7,600 sq. ft. of office space for an existing total on-site of 82,000 of office. Thus,  $307,000 \text{ gsf} - 82,000 \text{ gsf} = 225,000 \text{ gsf}$ .) There would be an increase of about 10,500 gsf of retail, and a decrease of at least 2,500 gsf of parking area, with a decrease of parking spaces from about 210 to 100. Parking would have a rate structure to encourage short-term use. (The proportionately greater decrease in the number of spaces compared with the decrease in space devoted to parking is due to the inherent inefficiency of newer high-rise buildings, such as the project, with large building cores and increased ramp and maneuvering space as compared to the existing parking structure at 525 Sacramento.) The north- and west-facing exterior walls of the 343 Sansome St. building would be removed and this building incorporated into the tower. The south and east facades would be retained. The new and old buildings would be structurally linked. On levels one through 13, floors and windows would be at the same level in the old and new structures.

The project would use about 78,800 gsf of Transferred Development Rights (TDR). The project sponsor has not yet determined the source of the TDR. The overall FAR for the development and contributory lots would be 9:1 or less. The existing 343 Sansome St. building has a FAR of 11.1:1, which preceded and now exceeds the basic allowable FAR of 9:1. Therefore, this lot could not be used as a contributory lot for TDR to other lots. TDRs would not be used on the lot containing the existing 343 Sansome St. building. All TDRs would be used on the 345 Sansome and 525 Sacramento lots. FAR for the overall project site would be 12.8:1. Basement parking space would be about 21,000 gsf, less than seven percent of gross floor area and would thus be considered accessory parking and not be counted as part of the FAR.

The project would include art as required by the Downtown Plan/Planning Code, and provide about 4,455 sq. ft. of required open space off-site by improving Leidesdorff St. between California and Sacramento Sts., with street furniture, landscaping, and lighting, to create a pedestrian mall between the Financial District and the Commercial-Leidesdorff Conservation District. The Downtown Plan/Planning Code requires provision of 6,360 sq. ft. of open space; the remainder of the open space requirement above that to be provided by improvement of Leidesdorff St. would be fulfilled in a manner to be determined. The project sponsor proposes to comply with the Downtown Plan child care requirement by payment of an in-lieu fee, rather than providing on-site child care space.

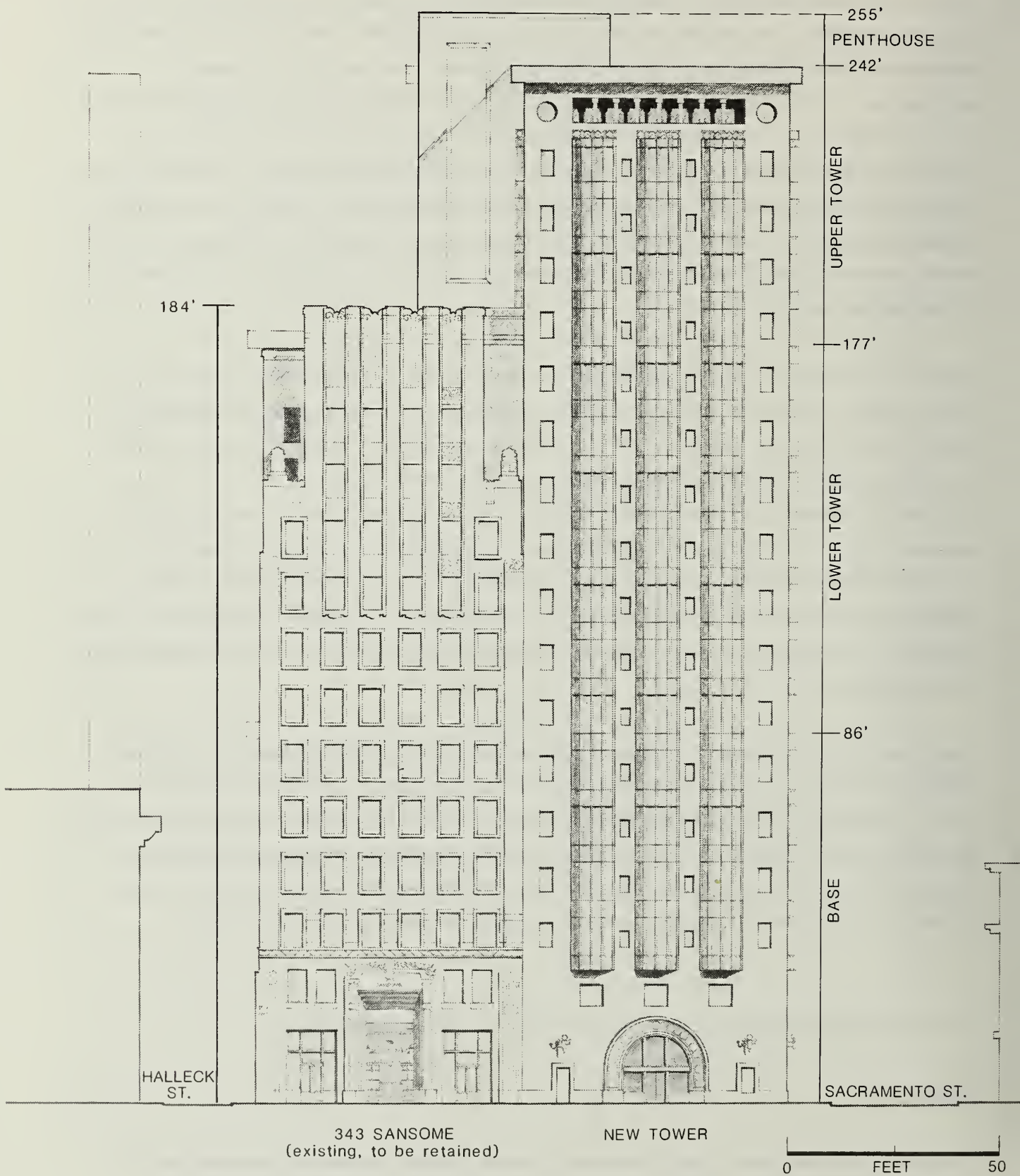
The project would be built to property lines at the base (to a height of 86 ft.); the lower tower would be set back from Leidesdorff St. by about 30 ft. Above the 13th floor (177 ft. in height), the building would be set back by about 30 ft. from Leidesdorff St. and about 60 ft. from Halleck St. The mechanical penthouse (floor 19) would be set back about 30 ft. from Leidesdorff St., about 40 ft. from Halleck St., and about 70 ft. from Sansome St. Floor plans and elevations are shown in Figures 2 to 6, pp. 22–26.

#### D. PROJECT SCHEDULE, COST AND APPROVAL REQUIREMENTS

##### SCHEDULE

The project sponsor expects environmental review, project review and detailed design to be completed in the fall of 1986. If the project were approved and building permits



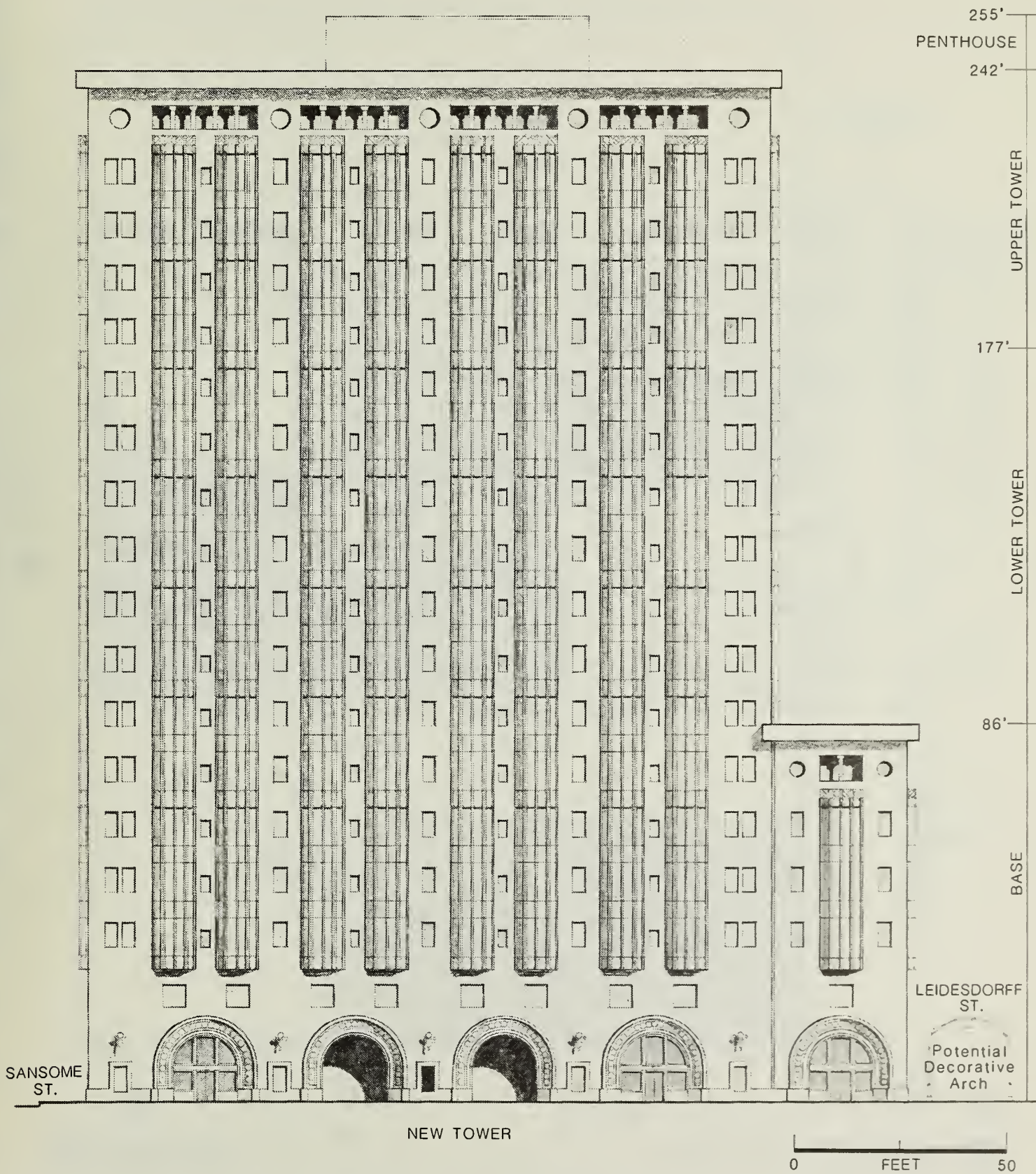


## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

FIGURE 1  
SANSOME STREET ELEVATION

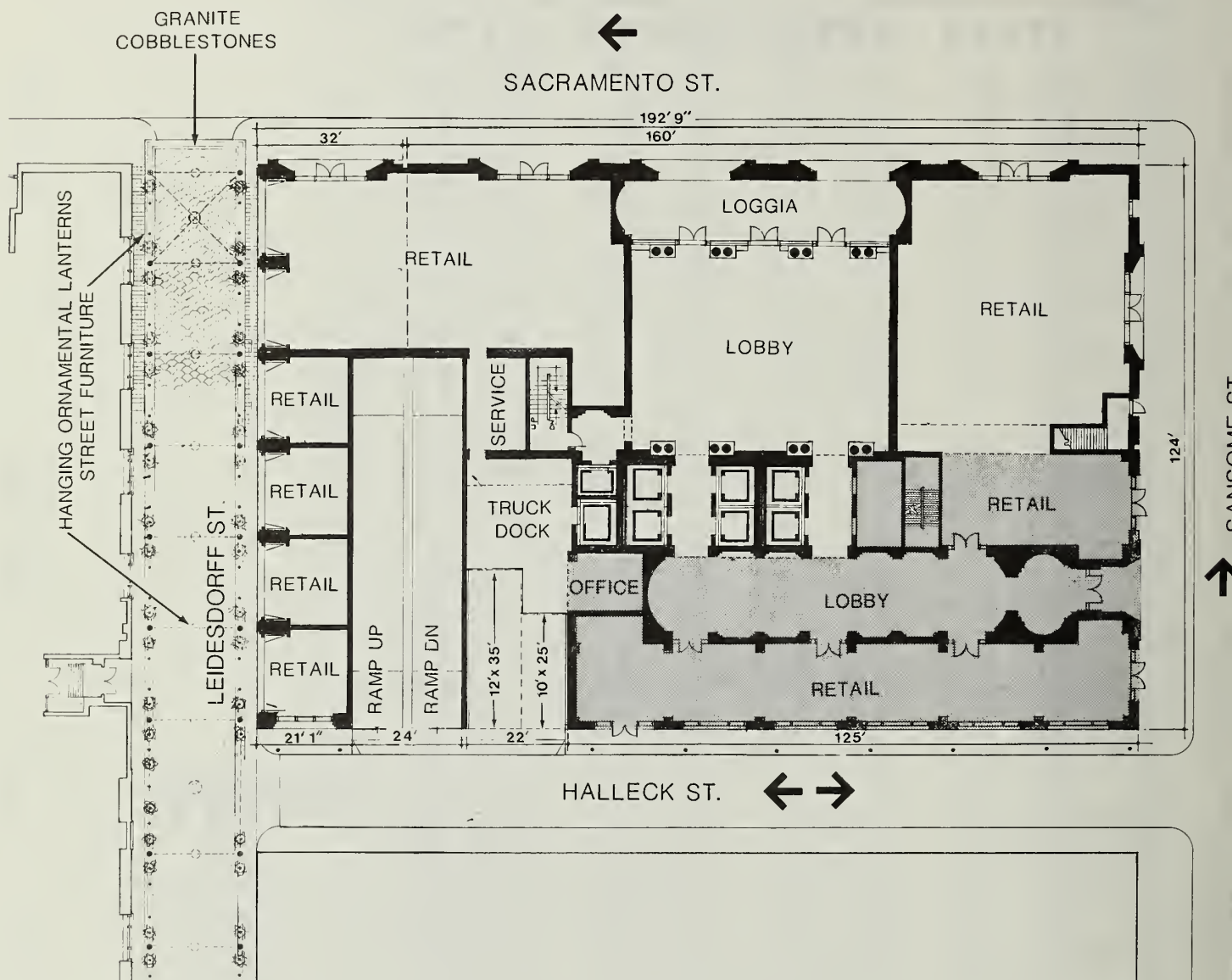




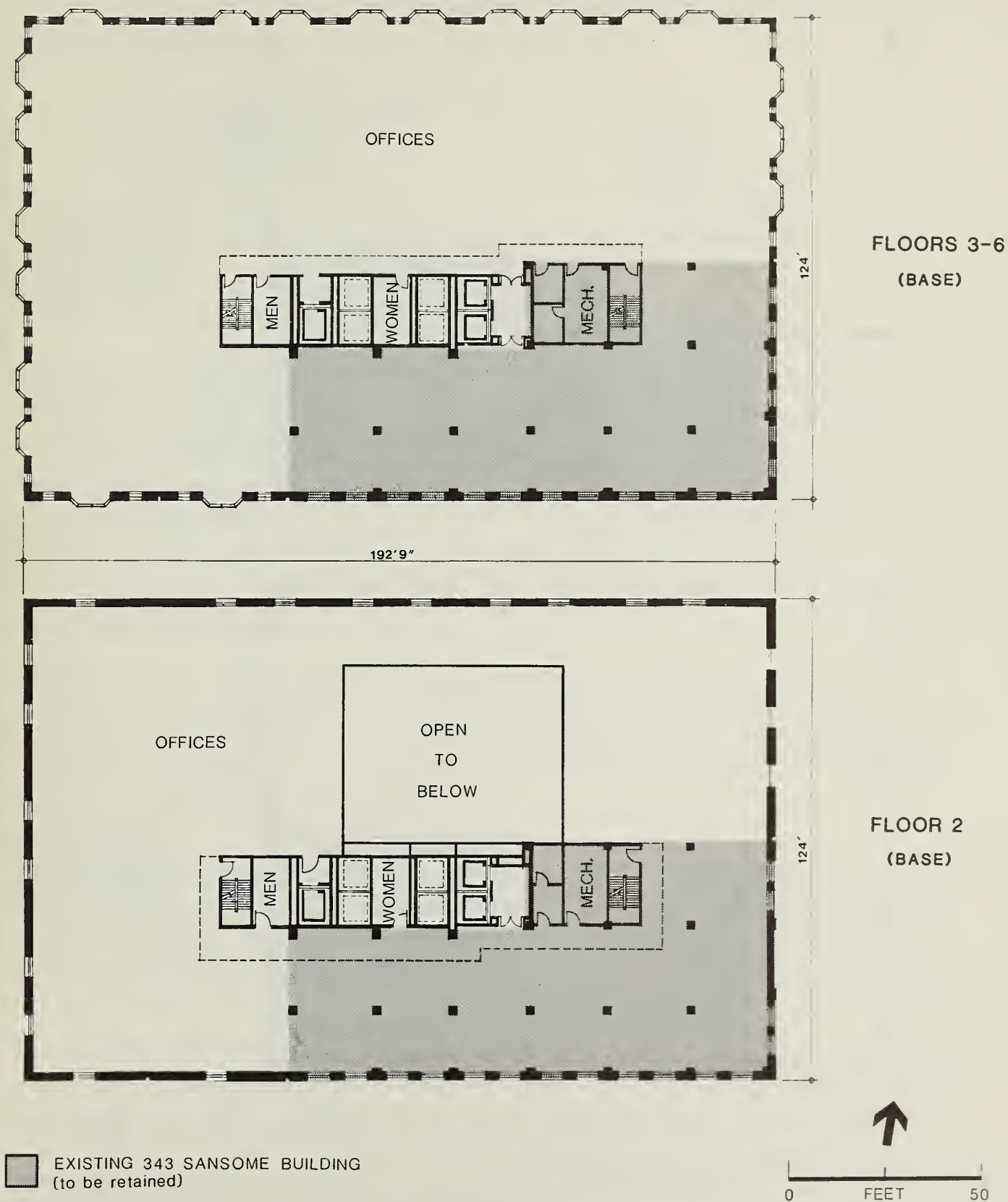
343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

FIGURE 3  
SACRAMENTO STREET ELEVATION



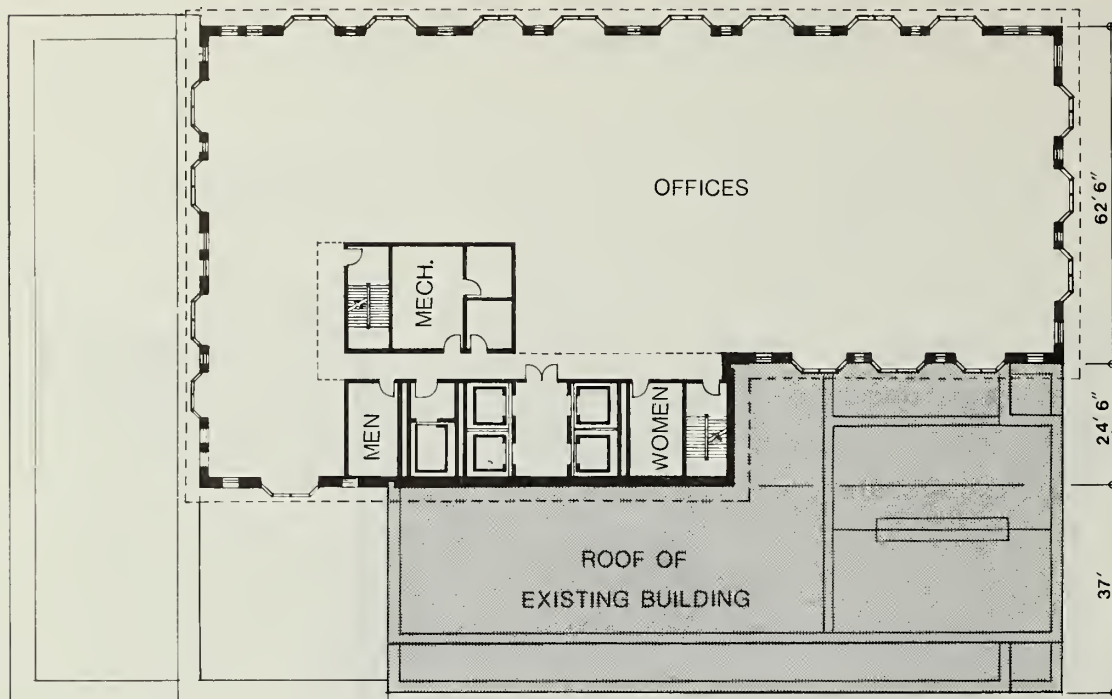




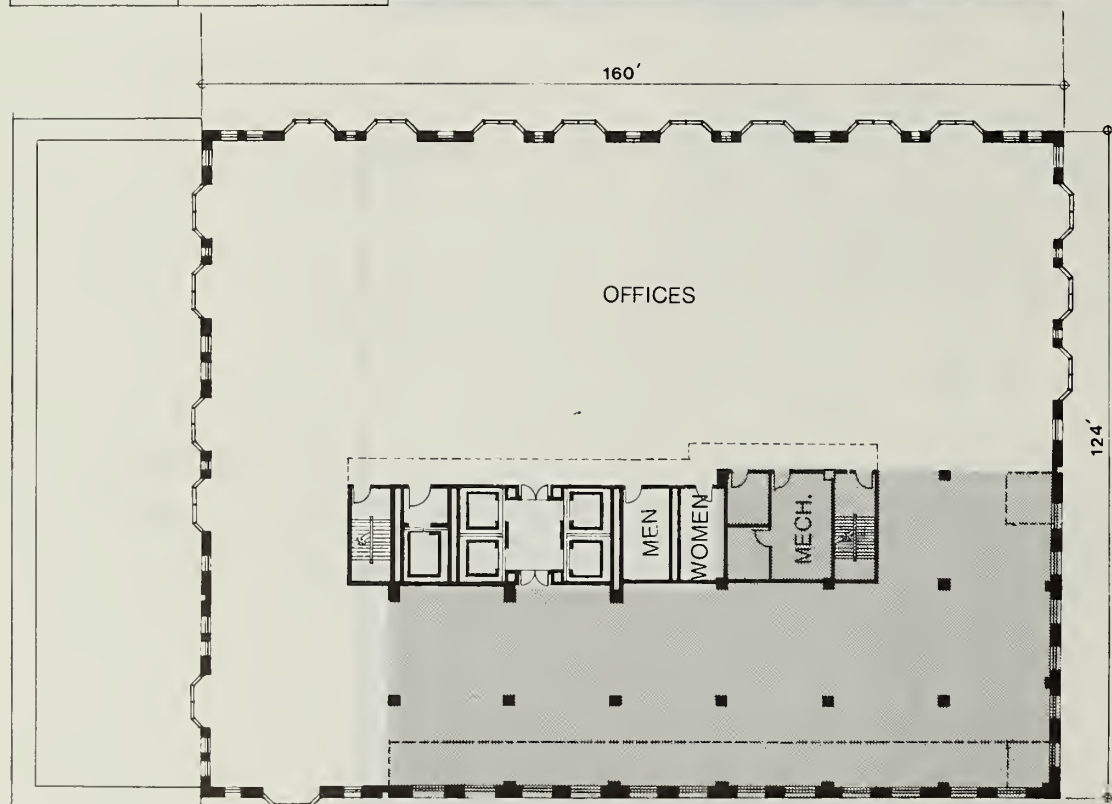
## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON


FIGURE 5  
FLOORS 2 AND 3-6 PLANS



**FLOORS 14-17**  
(FLOOR 18 SIMILAR)  
(UPPER TOWER)



**FLOORS 10-13**  
(FLOORS 7-9 SIMILAR)  
(LOWER TOWER)

 EXISTING 343 SANSOME BUILDING  
(to be retained)



## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

**FIGURE 6**  
**FLOORS 10-13 AND 14-17 PLANS**



issued, demolition and construction would take about 20 months. Construction periods are projected as follows:/2/

|                       |              |
|-----------------------|--------------|
| Demolition/Excavation | 8 – 12 weeks |
| Foundations           | 8 weeks      |
| Steel Erection        | 28 weeks     |
| Exterior Finishing    | 32 weeks     |

Initial occupancy would occur about 20 months from the start of demolition.

## COST

Estimated construction cost of the project would be about \$25 million, including demolition, excavation, building shell and interior improvements. Replacement cost for the entire building, including architectural and engineering fees, and tenant improvements, would be about \$55 million. Ground-floor retail space is expected to rent for approximately \$25 per sq. ft. per year. Office space is expected to rent for approximately \$25 per sq. ft. per year. (All figures are in 1986 dollars.)/1/

## APPROVAL REQUIREMENTS

Following a public hearing before the City Planning Commission on the Draft EIR, responses to written and oral comments will be prepared. The EIR will be revised as appropriate and presented to the City Planning Commission for certification. No permits may be issued before the Final EIR is certified.

The Downtown Plan was adopted and amendments to the City Planning Code to implement it (Permanent Controls) were approved by the City Planning Commission on November 29, 1984 (Resolution No. 10165). The amendments were acted on by the Board of Supervisors and signed by the Mayor on September 17, 1985, and became effective October 17, 1985.

The Office Growth Limitation Ordinance (Ordinance No. 414-85, approved September 10, 1985 by the Board of Supervisors, signed by the Mayor September 17, 1985, and effective October 17, 1985) limits growth in the form of major office developments (over 50,000 sq. ft.) in San Francisco to a total of 2.85 million sq. ft. over a period of three years (an average of 950,000 sq. ft. per year). This includes development citywide and encompasses development by the Redevelopment Agency, the Port of San Francisco

and State and Federal Agencies. In accord with the ordinance, the project would be subject to review and approval under Planning Code Section 321, Office Development: Limits.

Under Planning Code Section 309, Permit Review in the C-3 Districts, the project would require exceptions to bulk requirements (allowable under Section 272(a)1), and to exceed a maximum curb cut of 30 ft. for access to off-street freight loading and service vehicle spaces (allowable under Section 155(d)).

The project sponsor is requesting closure of Leidesdorff St. to traffic, and proposes to improve it for exclusively pedestrian use. Conversion of Leidesdorff from a pedestrian/service street, as it is designated in the Downtown Plan, to an exclusive pedestrian way would require review by ISCOTT (Interdepartmental Staff Committee on Traffic and Transportation), City Planning Commission approval of amendment to the Master Plan, Master Plan referral in which the Planning Commission must determine consistency of the proposal with the Master Plan, and review and approval by the Art Commission for design of physical improvements within the public right-of-way. The project sponsor would initiate a request for closure of Leidesdorff to vehicles, which would require agreement of owners of property fronting that portion of the street. After a public hearing, the Director of the Department of Public Works would make a recommendation to the Board of Supervisors. The full Board must approve the change after a public hearing before its Public Works Committee.

Proposition K, the Park Shadow Ban initiative, implemented by Planning Code Section 295, requires disapproval by the Planning Commission of any construction more than 40 feet in height whose shadow would adversely impact the use of property under the jurisdiction of the Recreation and Park Department, unless it determines, based on consultation with the Recreation and Park Commission, that the shadow would be insignificant. The project would require such a determination regarding its shadow on Maritime Plaza.

The City Planning Commission would hold a public hearing to consider project compliance with the Park Shadow Ban initiative and the project application under Sections 309, Permit Review in the C-3 Districts, and 321, Office Development: Limits. At this hearing, the Commission would also consider project requests for exceptions under Section 309(e), and would adopt a motion approving, approving with conditions, or

disapproving the project./2/ If the project were approved by the City Planning Commission, the project sponsor must obtain demolition, alteration, building, and related permits from the Central Permit Bureau of the Department of Public Works. Should the exception to the Downtown Plan curb cut width be approved, the project would also need an exception to the Standard Requirements for Automobile Driveways (Order No. 62850) from the Director of Public Works. An application for a Site Permit for the project (No. 8511793S) was filed with the Central Permit Bureau on October 17, 1985.

#### NOTES – Project Description

/1/ Shepherd Heery, Gerald D. Hines Interests, letter, January 28, 1986.

/2/ The Planning Code, Section 309(h) requires a public hearing before the City Planning Commission for all office and hotel projects exceeding 50,000 sq. ft. of net new area.



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### III. ENVIRONMENTAL SETTING

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#### A. LAND USE AND ZONING

##### LAND USE

The project site, located on the southwest corner of the intersection of Sansome and Sacramento Sts., is in the San Francisco Financial District. Land use in the vicinity consists predominantly of office use with ground-level retail use, parking lots and structures and some residential buildings/hotels. On the site are three buildings: the 13-story, 343 Sansome building, the four-story 525 Sacramento St. parking garage and the one-story 345 Sansome office building (see Figure 9-12, pp. 38-39, 41-42). Adjacent to the site to the south across Halleck St. is the Bank of California tower and Banking Hall. Across Leidesdorff St. to the west is the 13-story Wells Fargo Bank building. Across Sacramento St. to the north is PG&E Station J (at Leidesdorff) and the four-story Sun Building (at Sansome). The former Federal Reserve Building (part of the Embarcadero Center West development) is at the northeast corner of Sacramento and Sansome Sts. Another part of that development is under construction between Sacramento and Halleck Sts., fronting Battery, about one block east of the project site. Across Sansome St. to the east is a 10-story office building. The 505 Montgomery building is under construction at the northwest corner of Montgomery and Sacramento Sts. Projects recently completed in the site vicinity include the 456 Montgomery St., one block west, and the Bank of Canton headquarters building one block northwest of the site.

The nearest open space in the site vicinity is A.P. Gianninni Plaza, part of the Bank of America headquarters building, located about 600 ft. (about two blocks) southwest of the project site. Portsmouth Square and St. Mary's Square, both City parks, are located three blocks northwesterly and southwesterly, respectively, of the project site. Commercial St., one-half block north of the site, is to be improved as a pedestrian mall between Sansome and Battery Sts., as part of the under-construction Embarcadero Center West project. Pedestrian improvements to Commercial St. between Montgomery and Kearny Sts. will be completed as part of the 505 Montgomery St. project. The landmark Federal Reserve Bank building's steps are used by workers for sitting during the noon hour.



Residential uses in the project vicinity are primarily about one block to the northwest on Commercial and Clay Sts. and consist of three- and four-story apartment buildings and residential hotels.

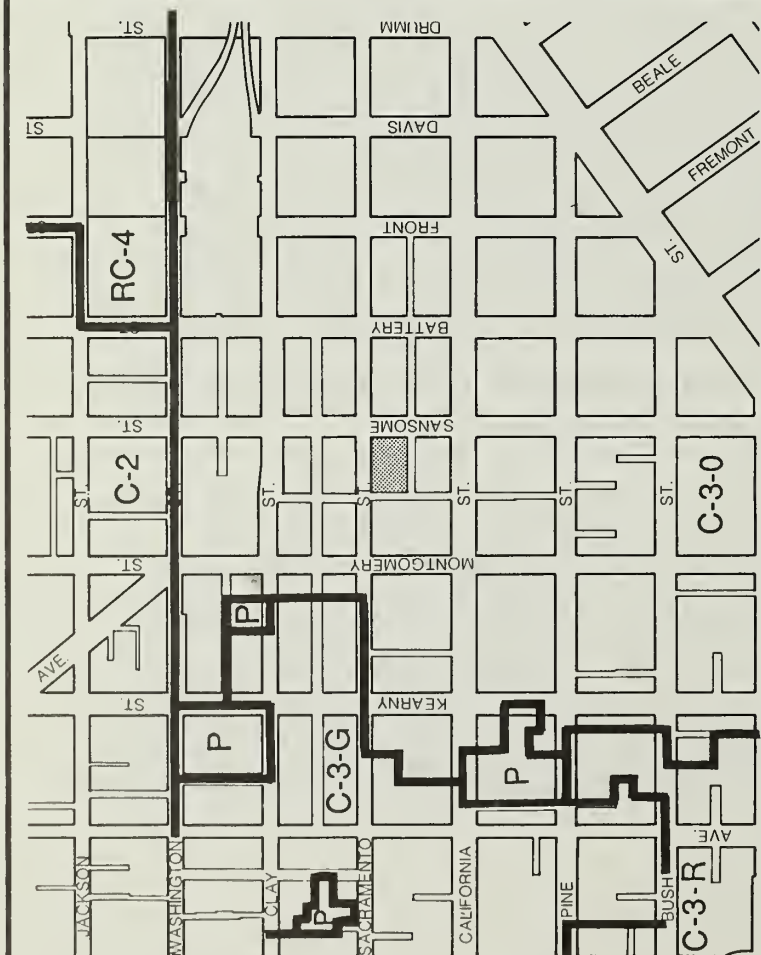
#### ZONING

The project site is in the area regulated by the Downtown Plan. The EIR prepared for the Downtown Plan was certified on October 18, 1984. The Downtown Plan and related amendments to the San Francisco Master Plan were approved and adopted by the City Planning Commission on November 29, 1984. The Board of Supervisors approved the Downtown Plan and implementing ordinances on September 10, 1985. The ordinances were signed by the Mayor on September 17, 1985, and took effect October 17, 1985.

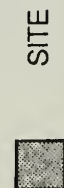
As noted on p. 27, the Office Growth Limitation ordinance limits growth of major office development (over 50,000 sq. ft.) in the City to a total of 2.85 million sq. ft. over a three-year period. This includes development citywide and encompasses development by the Redevelopment Agency, the Port of San Francisco, and state and federal Agencies. Section 321 of the Planning Code implements this ordinance.

The site is in the C-3-0 (Downtown Office) Use District (see Figure 7, p. 32). Office and retail are primary permitted uses in this zoning district. Development is allowable with a basic Floor Area Ratio (FAR) of 9:1. Development greater than the basic 9:1 FAR, up to a maximum 18:1 FAR, is allowable through transfer of development rights (TDR) from sites, in the same zoning district, that include architecturally significant buildings with unused potential floor area. All unused area applicable to the FAR of the preservation site could be transferred to a development lot in the same C-3 zoning district, subject to setback, sunlight access, separation between towers and any other limitations pursuant to Planning Code Section 309, Permit Review in the C-3 Districts.

The site is within a 300-S Height and Bulk District, in which the maximum height is 300 ft. (see Figure 7, p. 32). Ten percent of permitted building height is allowed above the height limit, upon further reduction in the volume of the upper portion of the tower (that is, to 330 ft.). An additional height of up to 16 ft. is allowable for a mechanical penthouse. Thus, in the 300-S District, the maximum allowable height is 346 ft. In the "S" Bulk District, the maximum permitted height of the building base is 1.25 times the



- LEGEND**
- C-2 COMMUNITY BUSINESS DISTRICT
  - C-3-R DOWNTOWN RETAIL DISTRICT
  - C-3-0 DOWNTOWN OFFICE DISTRICT
  - C-3-G DOWNTOWN GENERAL COMMERCIAL DISTRICT
  - RC-4 RESIDENTIAL-COMMERCIAL COMBINED (HIGH DENSITY) DISTRICT
  - P PUBLIC USE DISTRICT

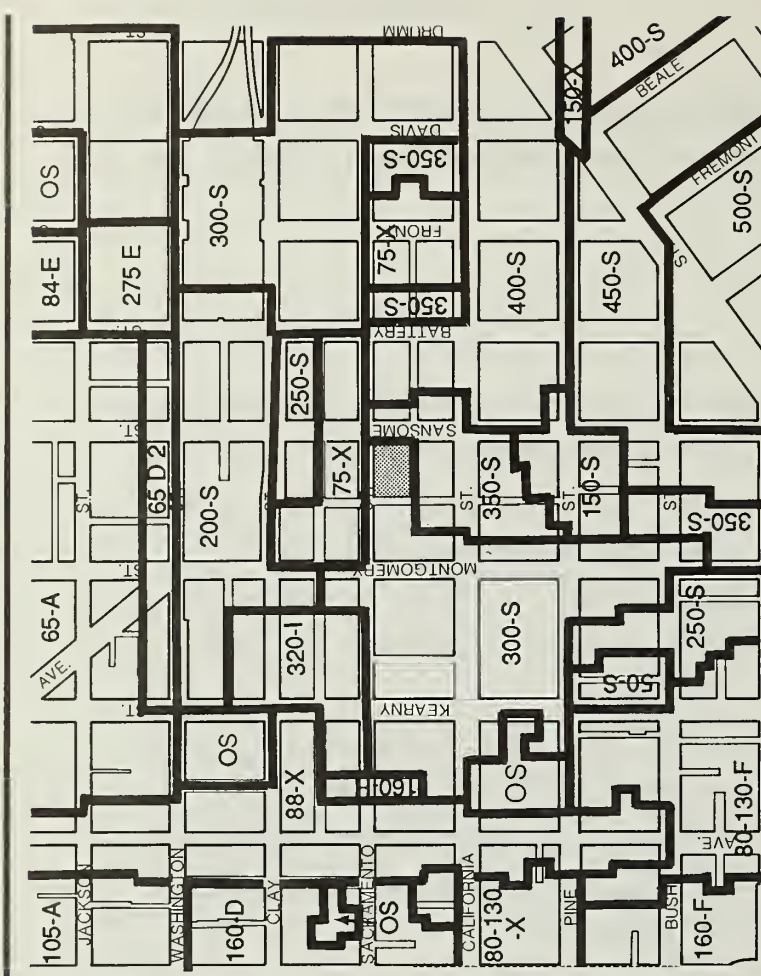


SITE

343 SANSOME

USE DISTRICTS

SOURCE: SAN FRANCISCO PLANNING CODE



**LEGEND**

NUMBERS INDICATE HEIGHT LIMITS  
LETTERS INDICATE BULK LIMITS AS FOLLOWS:

| Letter | Height above which maximum dimensions apply | Maximum building length | Maximum diagonal dimension |
|--------|---|-------------------------|----------------------------|
| A      | 40  | 110                     | 125                        |
| D      | 40  | 110                     | 140                        |
| E      | 65  | 140                     | 140                        |
| F      | 80  | 110                     | 140                        |
| H      | 100   | 170                     | 200                        |
| I      | 150   | 170                     | 200                        |
| OS     | See Section 290 of the Planning Code        |                         |                            |
| S      | See Section 290 of the Planning Code        |                         |                            |
| X      | Bulk Limits Not Applicable                  |                         |                            |

0 FEET 1000

↑

**FIGURE 7**  
**HEIGHT AND BULK DISTRICTS**



width of the widest abutting street (Sansome St. for the project, for a maximum permitted height for the base of 86 ft.); there are no length or diagonal dimension limitations for the base zone. The bulk controls for the lower tower are: a maximum length of 160 ft., a maximum diagonal dimension of 190 ft., a maximum average floor size of 17,000 sq. ft. and a maximum floor size of 20,000 sq. ft. The bulk controls for the upper tower are: a maximum length of 130 ft., a maximum average diagonal dimension of 160 ft., a maximum average floor size of 12,000 sq. ft. and a maximum floor size of 17,000 sq. ft. Allowable exceptions to these bulk maximums are provided in Planning Code Sections 270 and 272, subject to approval under Section 309.

Off-street parking is not required for commercial uses in the C-3-0 District and long-term parking is discouraged. According to Section 204.5 (c) of the Planning Code, a maximum of seven percent of the gross floor area of a building may be devoted to parking as an accessory use where no parking is required. This area is not counted as part of the FAR. In C-3 districts, off-street loading and service vehicle spaces are required as follows: 0.1 spaces per 10,000 sq. ft. of office (to closest whole number); one space is required for 10,001 to 30,000 gross sq. ft. of retail (Planning Code, Section 152.5, Table 5.5).

Open space is required for commercial uses in the C-3-0 District in a 1:50 ratio of open space to uses with open space requirements, as per Section 138(a) and (b) of the Planning Code. The open space provided must meet minimum standards as defined by Section 138(d) of the Code.

Under Section 149 of the Planning Code, one percent of the construction cost of a commercial development in the C-3-0 District must be devoted to publicly accessible works of art; additionally, on-site child care facilities, or in-lieu fees are required for commercial development which exceeds 100,000 gross sq. ft. in a C-3 district (Section 165 of the Code).

#### B. HISTORIC, ARCHITECTURAL AND CULTURAL RESOURCES

##### HISTORIC/ARCHITECTURAL RESOURCES

The project site is located in the Financial District. The site is occupied by two office buildings and a parking structure, the 13-story 343 Sansome St. office building, the

one-story 345 Sansome St. office building at the corner of Sansome and Sacramento Sts. and a four-story parking garage at 525 Sacramento St., which occupies the western portion of the site. Numerous buildings of architectural and historic significance in the site vicinity have been inventoried by three architectural surveys. The San Francisco Department of City Planning conducted a citywide inventory of architecturally significant buildings in 1976. In the 1976 Department of City Planning Architectural Inventory, approximately ten percent of the City's entire stock of buildings were awarded a rating for architectural merit ranging from a low of "0" to a high of "5". The total number of buildings which were rated from "3" to "5" represent less than two percent of the City's entire building stock.

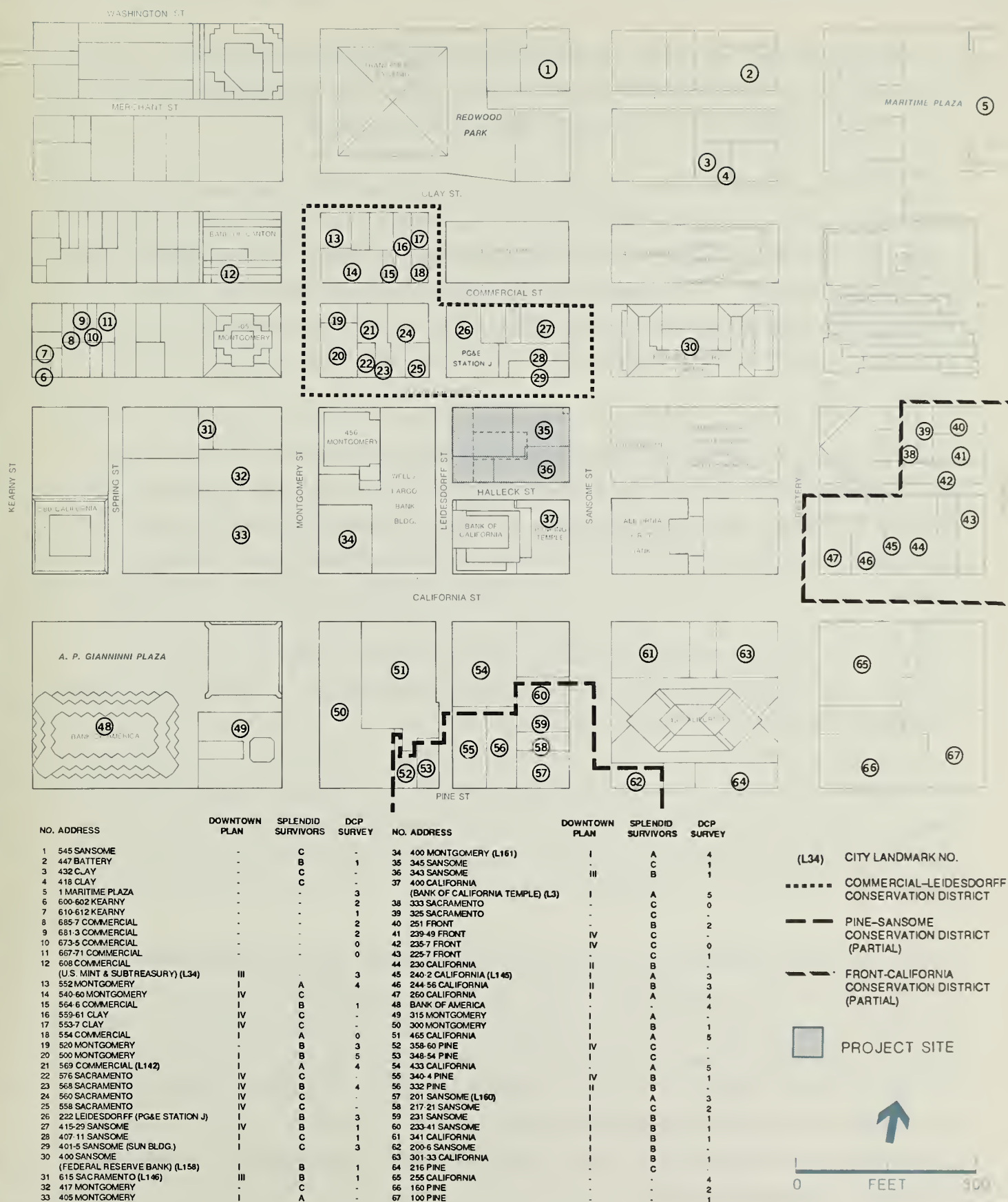
The Foundation for San Francisco's Architectural Heritage conducted a survey which assigned ratings to buildings in the C-3 District. The survey rated buildings from a high of "A" (Highest importance) to "D" (Minor or No Importance). The criteria used in the evaluation were based on guidelines of the National Trust for Historic Preservation, the National Register of Historic Places, and the State Historic Resources Inventory.

The Downtown Plan categorizes historically and architecturally significant buildings into either Category I or II (significant buildings) or Category III or IV (contributory buildings). It is the intent of the Downtown Plan that those buildings categorized I, II, III or IV are to be protected within the C-3 area.

Figure 8, p. 35, identifies those buildings in the project area that are landmarks and/or are included in (1) the 1976 Department of City Planning Architectural Inventory, (2) the Heritage Survey, and (3) the Downtown Plan. It also identifies nearby conservation districts.

In addition to the building-specific survey, the Downtown Plan identifies conservation districts in which review procedures would apply for unrated as well as significant and contributory buildings. Three conservation districts, as designated by Article 11 of the City Planning Code, are within two blocks of the project site (see Figure 8, p. 35). The Commercial-Leidesdorff Conservation District is across Sacramento St. from the site. Within this district are buildings of a variety of architectural styles, including Classical banking temples and three Pacific Gas and Electric substations with Romanesque and Classical ornamentation.<sup>1/</sup> A portion of this district, at the intersection of Montgomery





## 343 SANSOME

SOURCES: DOWNTOWN PLAN, SPLENDID SURVIVORS, DCP AND ESA

FIGURE 8  
ARCHITECTURAL RESOURCES  
IN THE PROJECT VICINITY

and Commercial Sts., was one of the original banking center locations (after the Portsmouth Square area) of the Financial District. Overall, the concentration of early 20th century architecture in this district makes it a City resource.

One block immediately east of the project site, facing Battery St., is the Front-California Conservation District. This district, along with the Commercial-Leidesdorff District, forms an area of buildings of small scale and low heights in contrast to the high density of the Financial District. The heights of buildings range from two to seven stories and building ornamentation is generally representative of the Renaissance period. This collection of small industrial buildings retains the scale and character of the pre-1906 commercial district./1/

The Pine-Sansome Conservation District is located about one block south of the project site. This area was an early center of the City as financial offices were located here by 1875. In the 1920s, many banks moved their offices north along Montgomery St. and insurance companies located here. In the 1930's, the Pacific Coast Stock Exchange located in the District, solidifying the area's status as a financial center. A wide variety of architectural styles are present, including classical Modern, Skyscraper Gothic, Gothic, Georgian Revival, and Renaissance. A range of commercial services are found in the District and a number of pre-1930 office structures account for the District's architectural merit./1/

The nearest City-designated historic district to the site is the Jackson Square Historic District, which is north of Washington St. between Columbus Avenue and Sansome St., about three blocks north of the site. The district contains virtually the sole surviving commercial buildings from the 1850's and 1860's.

Figure 8, p. 35, also identifies City landmarks and structures of merit, as designated by Article 10 of the City Planning Code, within two blocks of the project site. City landmarks in the site vicinity include the Bank of California at 400 California St. (adjoining the site on the south), Pacific Heritage Museum (former U.S. Sub-Treasury) at 608 Commercial St., PG&E Old Station J at 569 Commercial St., Buich Building at 240 California St., Jack's Restaurant at 615 Sacramento St., the former Federal Reserve Bank building at 400 Sansome St., Royal Insurance Building at 201 Sansome St., and Kohl Building at 400 Montgomery St.

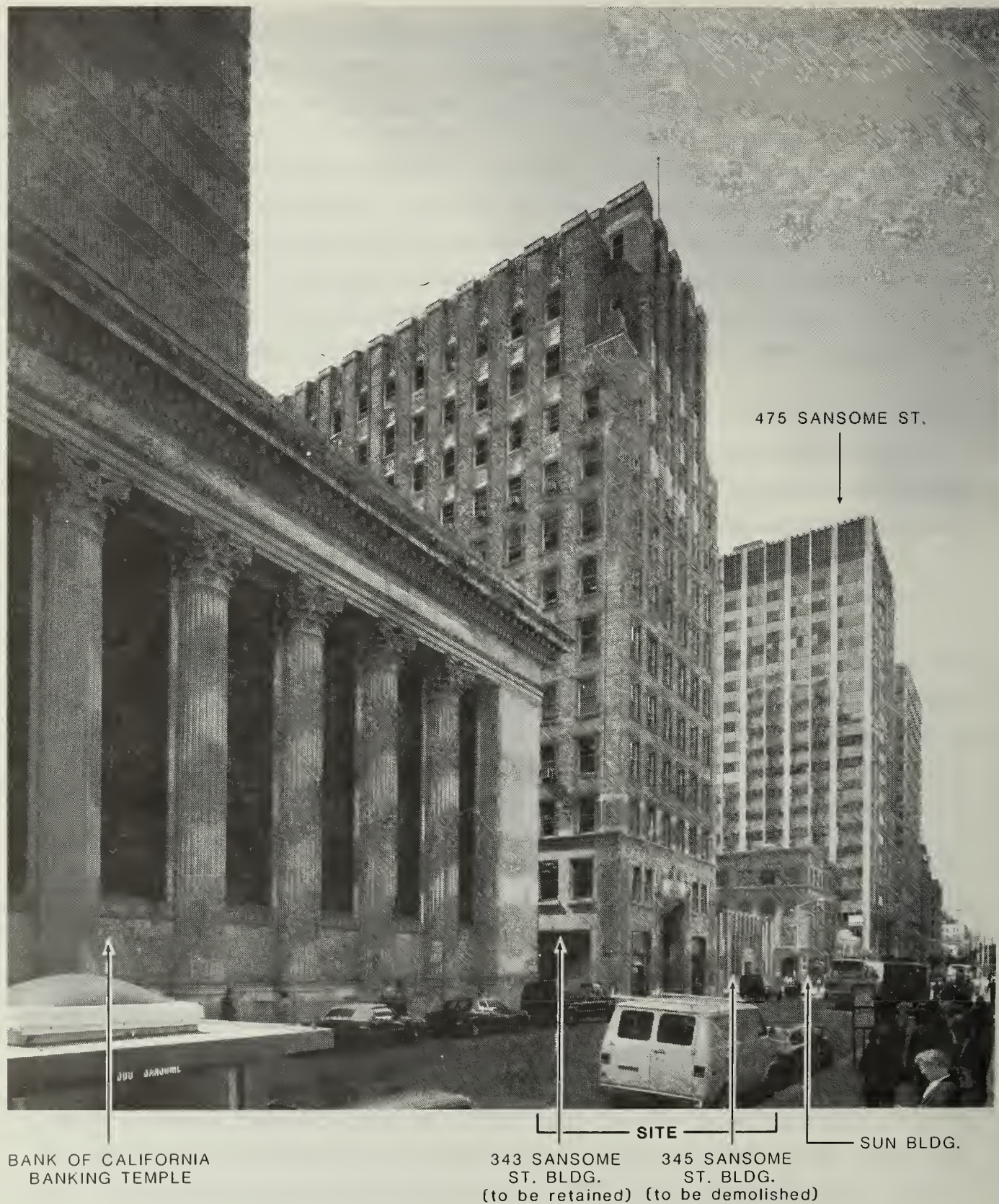
Heritage identified groups of buildings that meet the criteria for listing on the National Register of Historic Places as historic districts. One of these groupings, the Financial District (approximately bounded by Market St., Kearny St., Sacramento St. and Battery St.),/2/ encompasses part of the project site including the 343 Sansome St. building, which contributes to the cohesiveness of this area. The 345 Sansome St. and 525 Sacramento St. buildings are not included in the District. The character of the district is dominated by buildings from the 1920's, although it contains a great diversity of building sizes and styles including recent structures. The similarity of color, composition, and treatment of ground level in the District reflect the evolution of architecture in the area. The district as a whole represents a continuity of development that is unusual in American cities./2/

Neither 345 Sansome nor 525 Sacramento on the site is designated as historically or architecturally significant under the Downtown Plan. The 343 Sansome St. building is classified as a Category III Building. Category III of the Downtown Plan includes buildings which are located outside a conservation district, are at least 40 years old, judged to be of individual importance, and are rated either very good in architectural design or excellent or very good in relationship to the environment./1/

This 343 Sansome St. building is considered among the most important of the medium-scaled buildings which extend north along Sansome St. The building, rated "B" by the Heritage Survey and "1" by the Department of City Planning Architectural Inventory, contrasts with the modern high-rises and smaller old buildings in the vicinity./3/ The relationship of 343 Sansome St. building to the Bank of California's main banking hall provides a backdrop for this Bliss and Faville landmark (California Banking Hall, 400 California St.), and acts as part of the visual enclosure for the building's roof garden (see Figures 9 and 10, pp. 38-39)./4/

The 343 Sansome St. building was originally designed by the architectural firm of Howard and Galloway, and was completed in 1908. The structure was an eight-story, steel-frame office building designed in the Neoclassical Revival style with heavy rustication on the first two stories, a simple brick shaft and overhanging cornice./4/ In 1929, the building was completely remodeled in the Modern style for the Crown Zellerbach Company. Five new stories and Art Deco terra-cotta and brick detailing were added to the structure. Setbacks on the upper floors contributed to the building's Modern appearance./4/ The architects for this remodeling were Sam Hyman and Abe Appleton./3/



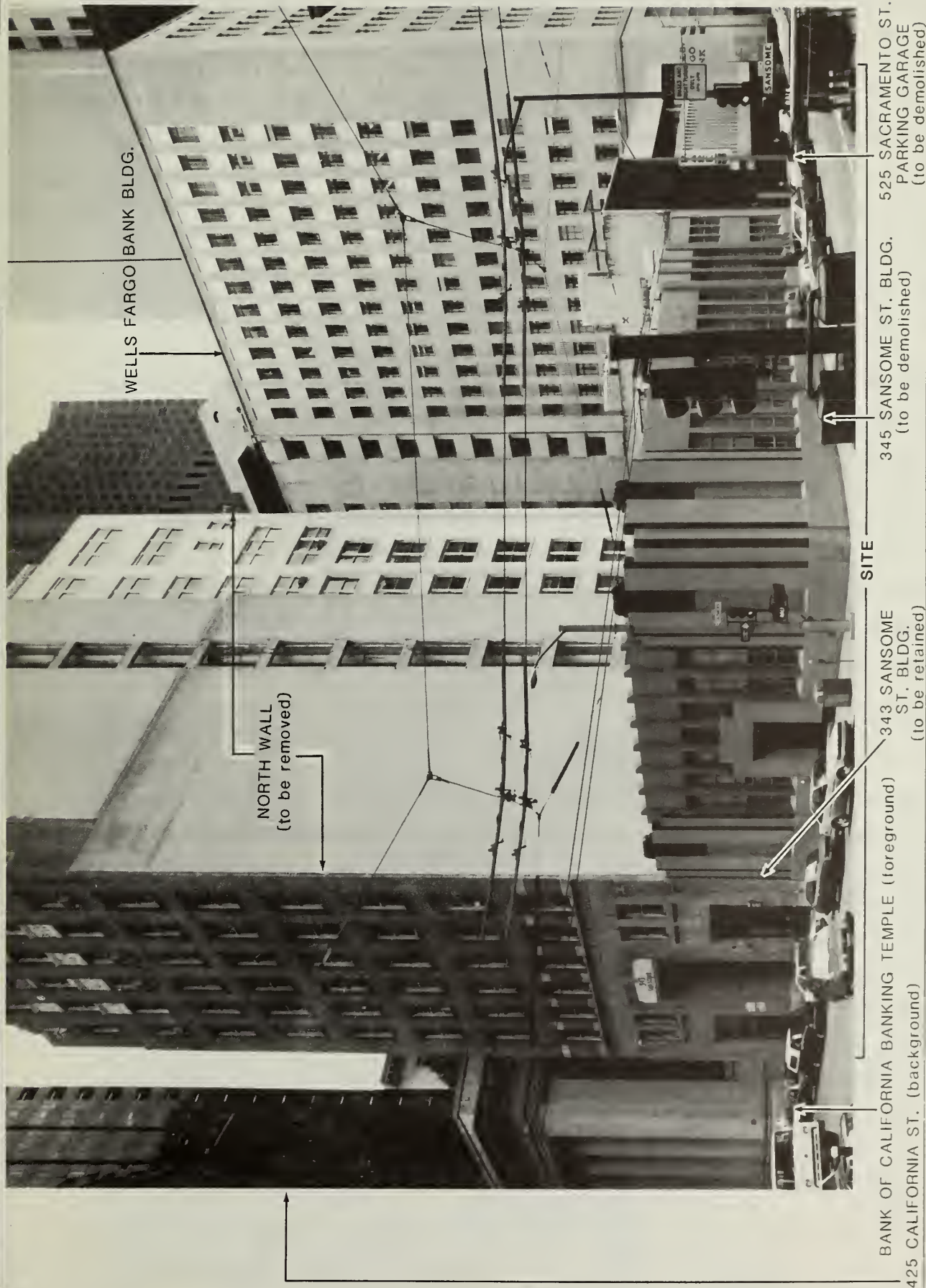


343 SANSOME

SOURCE: GERALD D. HINES INTERESTS

FIGURE 9  
VIEW OF SITE NORTH  
ALONG SANSOME STREET





343 SANSOME

FIGURE 10  
VIEW OF SITE SOUTHWEST FROM  
SANSOME/SACRAMENTO INTERSECTION

SOURCE: ESA

The base of the building is of terra cotta and the shaft is of a pier and spandrel system decorated with stylized terra cotta. The exterior of the building is considered to be in good condition./3/ A 1984 study concurs with this conclusion, although it states that some terra-cotta panels at ground-level and at the parapet require repair or patching./4/ The Sansome St. entrance is recessed and framed by geometric moldings./3/ When remodeled in 1929, the entrance of the building contained an elaborate bronze grillwork with flanking light fixtures. This grillwork has since been replaced by aluminum doors./4/ In the marble entrance lobby, much of the 1929 detail is intact, including Moderne light fixtures, gold metal elevator doors, and ceiling floral motif./4/ Some walls which do not reflect the Art Deco design were added to the lobby. The upper floors have been remodeled several times to suit tenants, resulting in some inconsistency in design of interiors./4/

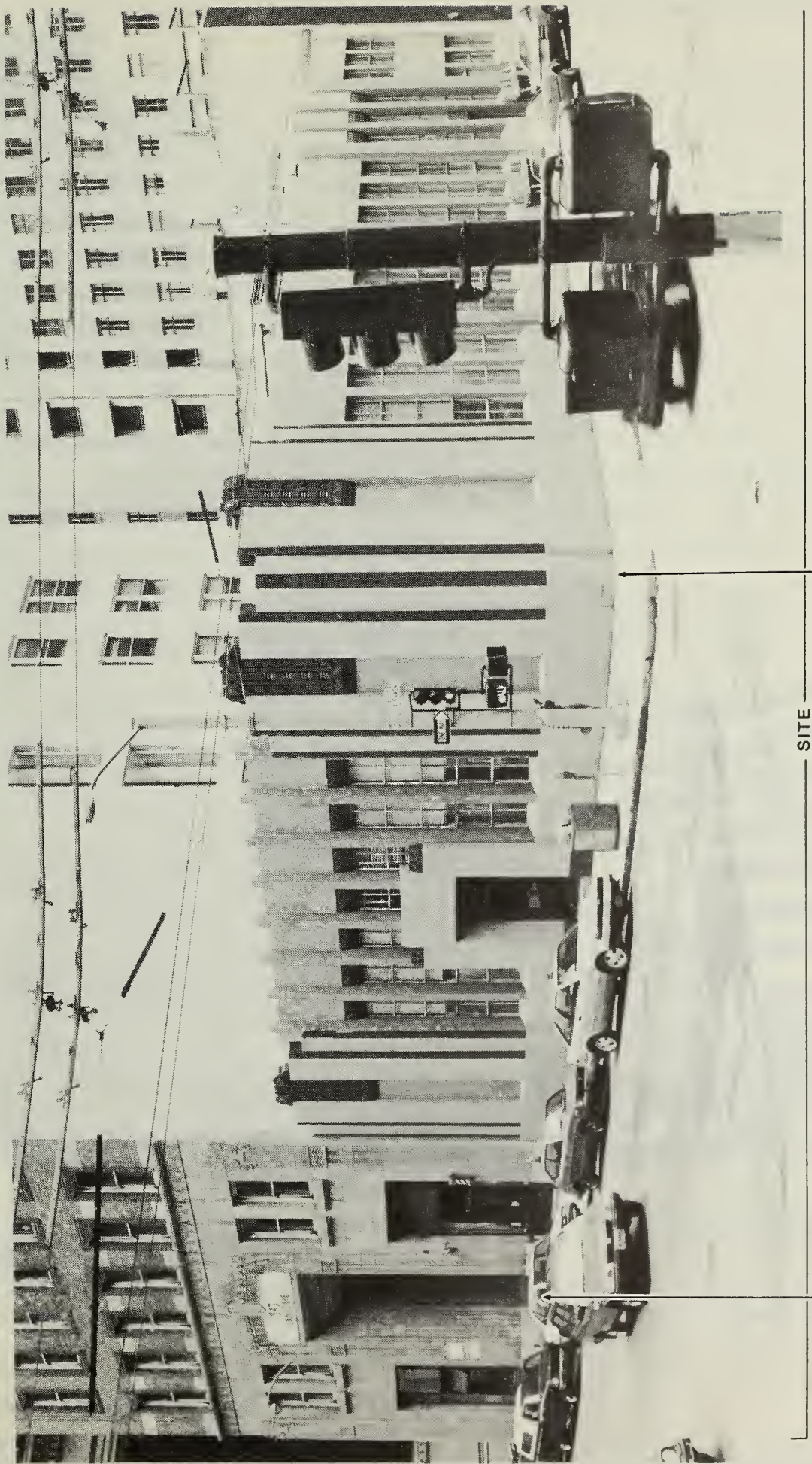
The one-story 345 Sansome St. office building was given ratings of 1 by the Department of City Planning Inventory and C by Splendid Survivors and, as noted, is not rated in the Downtown Plan. This building was built of reinforced concrete in 1931; the architect is unknown. Architectural features of this structure include an oversized entrance corner piers, ribbed facade, and "owl's eyes" ornamental motif (see Figure 11, p. 41)./2/

The parking garage at 525 Sacramento St. was built in 1964. This structure is not rated in the Department of City Planning Architectural Inventory, Splendid Survivors, or the Downtown Plan (see Figure 12, p. 42).

#### CULTURAL RESOURCES/5/

No evidence exists of prehistoric (ca. 800 B.C. – 1775 A.D.) activity at the project site or in its vicinity. It is doubtful that cultural remains from the Spanish/Mexican Period (1776–1849) would be recovered as the site vicinity remained under water until 1846. The earliest recorded history at this site dates from the Gold Rush period when, in 1849, Howison's Pier, at the corner of what is now Sansome and Sacramento, was used for ship storage; vessels docked at the pier were used to warehouse goods for protection against fire. The store-ship Thomas Bennett was docked at the pier during this time, within the confines of the project site. The final disposition of this ship is not known; there is a possibility that remains from this or other ships might be located at the site./6/





343 SANSOME ST. BLDG.  
(to be retained)

SITE

345 SANSOME ST. BLDG.  
(to be demolished)

343 SANSOME

FIGURE 11  
VIEW OF SITE (345 SANSOME ST.) FROM  
SANSOME/SACRAMENTO INTERSECTION

SOURCE: ESA





343 SANSOME

SOURCE: ESA

FIGURE 12  
VIEW OF SITE EAST ALONG SACRAMENTO  
STREET AT LEIDESDORFF STREET



During the Gold Rush Period of 1849 to 1857, the shoreline in the site vicinity was filled and extended three blocks eastward from Sansome St. Five structures were located at the project site during these years, although the uses of only two of these structures are known. The Adams House, an inn, was located at the southeast corner of the intersection of Leidesdorff and Sacramento Sts. Immediately south of the Adams House was Vincent Squarza, Wholesale and Retail Manufactory. The garage on the site encompasses the location of these two older structures.

The site was continuously developed with structures during the City Building Period (1858 to 1906). Buildings at the site included the American Exchange Hotel; Cunningham, Curtis and Welch Wholesale Stationary Company; a bindery; two wholesale liquor companies; the Adams House; a distillery business; and various offices and lodgings. All structures at the site were apparently destroyed by the earthquake and fire of 1906. Most recently, the existing 343 Sansome St. office building (which was completely remodeled in 1929) was constructed on the site in 1908. The 345 Sansome St. building was constructed in 1931 and the parking garage at 525 Sacramento St. was constructed in 1964. The 345 Sansome St. and 525 Sacramento St. structures would be demolished for the proposed project; the 343 Sansome building would be retained, except for its north and west walls.

The site condition just prior to the time of the Gold Rush Period consisted of Bay mud. Filling of the site occurred between 1847 and 1853, creating the present level terrain at the site.

The proposed project would include excavation to a depth of about 20 ft., which would be below the foundation levels of the existing 345 Sansome St. building and the parking garage at 525 Sacramento St., and which would disturb soils probably not exposed since 1847. Artifacts of consequence from the Gold Rush era found at similar San Francisco sites include wooden ships, hotel and store artifacts, and architectural remnants which have served to expand the historic record of the people and events of that era.

#### NOTES – Historic, Architectural and Cultural Resources

/1/ San Francisco Department of City Planning, City Planning Code, Article II, Appendices G, H and J, pp. 119 – 127, 131 – 135.

/2/ Splendid Survivors, by Charles Hall Page & Associates for the Foundation for San Francisco's Architectural Heritage, 1979.

/3/ Charles Hall Page & Associates, Architectural Survey Form, 343 Sansome Building, June 13, 1977. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., San Francisco, California.

/4/ Robinson, Mills and Williams, "343 Sansome Rehabilitation Study," June 1, 1984. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., San Francisco, California.

/5/ Archival research was conducted for the project by Mason Tillman Associates, August, 1985; the resulting report entitled "343 Sansome St. Project Archival Report" is on file and available for public review at the Office of Environmental Review, Department of City Planning, 450 McAllister St., San Francisco, California.

/6/ Dr. Eleanor Ramsey, Mason Tillman Associates, telephone conversation, June 16, 1986.

#### C. URBAN DESIGN

The project site contains three separate buildings: 525 Sacramento St., a four-story concrete parking garage; the one-story 345 Sansome St. office building of reinforced concrete with ornamentation; and the 13-story 343 Sansome St. building of streamlined Moderne style. The latter building is clad in buff-colored brick with light-colored terra cotta ornamentation (see Figures 9-10, pp. 38-39). See Section III., Setting, B., pp. 33-40, for a more detailed description of the site buildings.

The project area is a mix of older (dating from 1906 to the 1920s) and newer (beginning in the 1950s) development. Existing buildings in the project block range from one to 25 stories with generally light colors and facade materials including light-colored brick and stone, light-gray concrete and steel, and glass. Older buildings tend to be of brick or a mix of brick and concrete, often with terra cotta ornamentation, recessed ornamented windows, single or double cornices, and distinct compositional elements; thus, they generally contain more surface ornamentation than more recently constructed high-rise buildings. The Bank of California banking hall, south of and across Halleck St. from the site, was built in 1907. It is of steel frame construction with a carved granite exterior of large-scale Corinthian order design composition with classical ornamentation. The Bank of California tower, adjacent to and west of the banking hall, was built in 1967. It is 20 stories tall and faced in glass and light-gray concrete. A second-level terrace is atop the banking hall, accessible from the tower. Immediately west of the site is the 12-story Wells Fargo Bank building, built in 1959; the building is faced in painted concrete, with



metal spandrels and glass. The recently completed 25-story 456 Montgomery St. building, west of the site, is faced in light-gray steel with recessed windows. The facades of the 440 Montgomery St. and 460 Montgomery St. buildings, which date from 1908 are incorporated into the base of 456 Montgomery St.; these facades are of light-colored granite, with classical ornamentation. The composition of both 440 and 460 Montgomery St. is modified temple without pediments.

Buildings in the area generally are built to lot lines and form continuous street frontages which define the grid street pattern of the Financial District, with few parking lots or alleys. Open space in the area is limited. There is a private terrace on the roof of the adjacent Bank of California banking hall; the private, publicly accessible redwood park adjacent to the Transamerica building is about one block north of the site; the podium level plazas of One Embarcadero Center and Maritime Plaza are about one and one-half blocks east and northeast of the site. The sunken plaza surrounding the Crown Zellerbach building is about three blocks south of the site. The steps of the former Federal Reserve Bank building diagonally across Sansome St. from the site are used in good weather as open space, primarily during the noon hour. Portsmouth Square and St. Mary's square are three blocks from the project site, northwesterly and southwesterly, respectively.

Buildings on the site are visible only from points within the immediate site vicinity; taller, intervening buildings block views of the site from more-distant points such as Telegraph Hill and Nob Hill and from distant views from the south and east. The 343 Sansome St. building is visible from about three blocks north and south from the site on Sansome St. The 525 Sacramento St. and 345 Sansome St. buildings are visible from about two blocks east and west of the site on Sacramento St.

From the Sacramento St. sidewalks near the project site, the Ferry Building is partially visible. With the construction of the Embarcadero Center West Sacramento St. pedestrian bridge near Battery St., the Ferry Building would still be partially visible from the project site. To the west, views on Sacramento St. include the lower scale buildings of Chinatown and the east slope of Nob Hill.

#### D. SHADOW AND WIND

##### SHADOW

Existing and project shadow patterns for various times of the day and year are shown in Chapter IV.D, Environmental Impact, p. 81–89. Section 147 of the Planning Code states that any new development in the C–3 districts should be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and publicly accessible spaces. Factors to be taken into account in the determination of shadow impacts include: the amount of open area shadowed, the duration of the shadow, and the importance of sunlight to the utility of the type of open space being shadowed.

##### WIND

U.S. Weather Bureau data show that westerly (i.e., from the west) to northwesterly winds are the most frequent and strongest winds during all seasons in San Francisco./1/ Of the 16 primary wind directions measured at the Weather Bureau station (at a height of 132 ft.), four directions comprise the greatest frequency of occurrence as well as the majority of strong wind occurrences. These are northwest, west–northwest, west, and west–southwest, with occurrence rates of about 10%, 14%, 35%, and 2%, respectively, of the time between the hours of 6:00 a.m. to 8:00 p.m. throughout the year. The remaining 12 wind directions comprise the remaining 36% frequency of annual occurrence with lower wind speeds. Calm conditions occur about two percent of the time.

Average wind speeds are highest during summer and lowest during winter months. However, strongest peak winds occur in winter, when speeds of 47 miles per hour (mph) have been recorded./2/ The highest average wind speeds are in the mid–afternoon, and the lowest are in the early morning.

Between the hours of 7:00 a.m. and 6:00 p.m. on an annual basis, wind speeds measured at the Weather Bureau station exceeded 21, 25, 21, and 18 mph 10% of the time for northwest, west–northwest, west, and west–southwest winds, respectively, while the 12 remaining wind directions exceeded 15 mph 10% of the time.



#### Pedestrian Comfort and Wind Criteria

Wind conditions partly determine pedestrian comfort on sidewalks and in other public areas. In downtown areas, high-rise buildings can redirect wind flows around buildings and divert winds downward to street level; each can result in increased wind speed and turbulence at street level.

The comfort of pedestrians varies under different conditions of sun exposure, temperature, clothing, and wind speed. Winds up to four mph have no noticeable effect on pedestrian comfort. With winds from four to eight mph, wind is felt on the face. Winds from eight to 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole. For winds from 19 to 26 mph, the force of the wind will be felt on the body. At winds of 26 mph to 34 mph, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and wind noise is unpleasant. Winds over 34 mph increase difficulty with balance and gusts can blow people over./3/

In order to provide a comfortable wind environment for people in Downtown, Section 148 of the Planning Code establishes an equivalent (includes the effects of turbulence) wind speed (as defined in the Code) of seven and 11 mph as comfort criteria and 26 mph as a wind hazard criterion. Section 148 sets comfort levels of seven mph equivalent wind speed for public seating areas and 11 mph equivalent wind speed for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground level winds that would exceed these levels more than 10% of the time year round between 7:00 a.m. and 6:00 p.m. year round./4/ If existing wind conditions exceed the comfort criteria, new buildings and additions shall be designed to reduce ambient wind speeds to meet the requirements.

A building may qualify for an exception to the standard that would allow it to add to the amount of time the comfort level is exceeded by the least practical amount if 1) it can be shown that the building or addition cannot be shaped and other wind baffling measures cannot be adopted to meet the foregoing requirements without creating an unattractive and ungainly building form and without unduly restricting development of the building site in question, and 2) it is concluded that, because of the limited amount by which the comfort level is exceeded, the limited location in which the comfort level is exceeded, or the limited time during which the comfort level is exceeded, the addition is insubstantial.

No building or addition that would cause wind speeds to exceed the 26 mph hazard level for more than a single hour of any year would be permitted.

Existing and project-generated wind conditions are discussed in detail in Chapter IV.D, Environmental Impact, p. 81–89 and Appendix B, p. A–35.

#### NOTES – Shadow and Wind

/1/ The U.S. Weather bureau data used in this analysis were originally gathered at the weather station atop the old Federal Building at 50 United Nations Plaza during the years 1945–50. Data were taken hourly, annually for 16 wind directions. The data base, comprised of 32,795 hourly observations, is of sufficient length to provide a reliable estimate of future climatic conditions in San Francisco.

/2/ E. Jan Null, Climate of San Francisco, NOAA Technical Memorandum, NWS WR-126, February, 1978.

/3/ Lawson, T.V., and A.D. Penwarden 1976, "The Effects of Wind on People in the Vicinity of Buildings," Proceedings of the Fourth International Conference on Wind Effects on buildings and Structures, London, 1975, Cambridge University Press, Cambridge, U.K., 605–622.

/4/ Section 148 of the Planning Code specifies the hours of 7:00 a.m. to 6:00 p.m. The available weather data that include that interval cover the hours of 6:00 a.m. to 8:00 p.m. Thus, observation from two additional evening hours and one additional morning hour are included in these data. Because, in general, winds are stronger in the afternoon and evening than in the morning, this approximation is conservative – it is likely to overestimate the existing and projected wind speeds.

#### E. TRANSPORTATION

The existing on-site 210-space garage provides parking for long- and short-term users. A parking turnover survey (see Appendix C, p. A-43) indicates that 61 of the 210 spaces operate as short-term spaces (vehicles stay less than four hours), the remainder as long-term (vehicles staying four hours or more).

The site is served by local streets and by portions of the regional freeway system (see Figure 1, p. 17). Access to the freeway connecting with the East Bay via the Bay Bridge is provided by ramps at Clay and Battery Sts. (about 1,400 ft. northeast of the site) and at Mission and Beale Sts. (about 2,000 ft. southeast of the site). Access to the freeway connecting with the Peninsula and San Francisco International Airport is also provided by these ramps. Access from the freeway system to the project site is provided by



off-ramps at Washington and Battery Sts. (about 1,500 ft. northeast of the site) and at Mission and Main Sts. (about 2,100 ft. southeast of the site).

The site is within the Downtown Core automobile control area designated in the Downtown Transportation Plan of the Transportation Element of the San Francisco Master Plan.<sup>/1/</sup> A Plan goal is to reduce the number of private commuter vehicles and excess automobile traffic in the Downtown Core; the Downtown Transportation Plan discourages the addition of new long-term parking spaces in and around downtown.

In the vicinity of the project site, Battery, Sansome, Clay and Sacramento Sts. are designated as Transit Preferential Streets, on which priority is given to transit vehicles over autos during commute and business hours on weekdays.<sup>/1/</sup> Sansome St. is also designated for shuttle transit for intradowntown movements, especially from parking belts to the downtown core. Battery and Sansome Sts. are designated as pedestrian-oriented streets; such streets are vehicular streets on which design measures should be implemented to improve mobility and to render existing pedestrian space more pleasant and efficient. Clay and Montgomery Sts. are designated as Primary Vehicular Streets, which the Master Plan defines as "major routes for automobile and truck movements into and out of the Downtown area." Clay and Sacramento Sts. function as a pair moving traffic westbound and eastbound, respectively. Battery and Sansome Sts. also act as a pair, carrying traffic southbound and northbound respectively. The intersections of Sacramento St. with Battery and Sansome Sts. are both signal-controlled (as are the intersections of Clay with Sansome and Battery, north of the project site). Leidesdorff St. is designated in the Transportation Element and Downtown Plan in the Master Plan, as a pedestrian/service street, which "because of service needs, cannot be for exclusive pedestrian use . . . but through design can be made into pleasant pedestrian spaces."<sup>/1/</sup> Leidesdorff St. is one-way northbound between California and Sacramento Sts. Halleck St. is a two-way east-west street.

The site is served by San Francisco Municipal Railway (Muni) electric trolley and motor coach lines, providing radial service to and from the downtown area. Muni Metro light rail vehicle lines are accessible via the Montgomery Station of the Market St. subway, three blocks south of the project site and the Embarcadero Station four blocks east. The closest Muni bus stops to the project site are at the intersections of Sacramento and Battery Sts. and Sacramento and Sansome Sts., including the 42-Downtown Loop.



41–Union and 1–California Express lines. The California St. cable car line is available about one block south.

Market St. is located three blocks south of the site; it is designated a Transit Thoroughfare in the Market Street Planning Project Final Report (November 1985). In August 1985, Muni began a nine-month trial operation of four-lane service on Market St. between the Financial District and Civic Center; this program will continue indefinitely and has improved surface transit along Market Street.<sup>2/</sup> Improvements along Market St. in the vicinity of the project include relocated bus stops to conform with providing four transit lanes on Market St.

Regional transit service to the site is provided to and from the East Bay by the Bay Area Rapid Transit District (BART) at the Montgomery and Embarcadero Stations on Market St. (three blocks south and four blocks east of the site, respectively), and by AC Transit motor coaches at the Transbay Transit Terminal, on Mission St. at First St., four blocks southeast of the project site. Transit routes in the project vicinity are shown on Figure 21, p. 95.

Service to the Peninsula is provided by Caltrain from the train terminal at Fourth and Townsend Sts.; by the San Mateo County Transit District (Samtrans), with bus routes along Mission St.; and by BART, which provides transfers to Samtrans routes at the Daly City BART Station. Independently owned and operated jitneys provide service along the entire length of Mission St. (from The Embarcadero to Daly City) during a.m. and p.m. peak hours.

The Golden Gate Bridge, Highway and Transportation District (Golden Gate Transit) provides a.m. and p.m. peak-period bus service from/to Marin and Sonoma Counties. The closest (outbound) boarding stop to the project site is on Sansome St. at Sacramento St. (across the street from the site); the discharge stop closest to the project site is located on Battery St. at Sacramento St. (one block east of the site). Golden Gate Transit provides ferry service to terminals in Larkspur and Sausalito from the Ferry building (about 2,500 ft. northeast of the site).

Golden Gate Transit also operates a vanpool and club (subscription) bus program to areas not served by fixed routes. The RIDES carpool program, operating as a nonprofit, publicly funded corporation, provides consulting and matching services to help establish Bay Area

carpools and vanpools. There are about 1,240 combined carpools and vanpools on the Golden Gate Bridge during the a.m. peak hour, carrying about 4,500 people daily (average occupancy of 3.6 persons per ridesharing vehicle)./3/ The Bay Bridge has about 2,800 carpools during the a.m. peak hour; carpools from/to the East Bay carry about 10,900 people daily (an average occupancy of 3.9 persons per carpool vehicle)./4/

Pedestrian activity around the site during the peak periods of 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. is directed primarily to and from transit and parking facilities. Peak afternoon pedestrian flows are generally more intense than those of the morning period. Noon-hour flows are similar to the afternoon flows and are directed primarily to restaurants and retail stores within the downtown area.

The Sansome St. sidewalk in front of the project site currently operates in impeded conditions during both the noon and p.m. peak hours. The Sacramento St. sidewalk operates in unimpeded conditions during both the noon hour and the p.m. peak hour. The crosswalk across Sacramento St. closest to the site currently operates in impeded conditions during both the noon and p.m. peak hours. The crosswalk crossing Sansome St. closest to the site operates in impeded conditions during the noon hour, and unimpeded conditions during the p.m. peak hour. Pedestrian volumes on Halleck St. are low during both the noon and p.m. peak hour./5/

The estimated parking demand (both long-term and short-term) from the C-3 District in 1984 was found to be about 45,300 spaces, which would occupy about 94% of the 48,000 parking spaces in and near the C-3 District.

#### NOTES – Transportation

/1/ San Francisco Department of City Planning, January 1983, Transportation, An Element of the Master Plan.

/2/ K. L. Wong, Muni Planning Division, telephone conversation, May 6, 1986.

/3/ Maria Thayer, Golden Gate Bridge, Highway and Transportation District, telephone conversation, December 2, 1985.

/4/ Traffic Survey Services MA-60, Bay Bridge, Metropolitan Transportation Commission, Spring 1985.

/5/ Pedestrian counts conducted by ESA on Thursday, November 14, 1985, from 12:00 p.m. to 1:00 p.m. and 4:30 p.m. to 5:30 p.m.

F. AIR QUALITY

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six air pollutants: ozone ( $O_3$ ), carbon monoxide (CO), total suspended particulates (TSP), lead (Pb), nitrogen dioxide ( $NO_2$ ), and sulfur dioxide ( $SO_2$ ). On the basis of the monitoring data, the Bay Area, including San Francisco, currently is designated a non-attainment area with respect to the federal ozone and CO standards. A three-year summary of the data collected at the BAAQMD monitoring station nearest the project site (about 2.7 miles southwest at 900 23rd St.) is shown in Appendix D, p. A-49, together with the corresponding federal and/or state ambient air quality standards. In 1984, there was one violation of the state ozone standard, one violation of federal and state eight-hour CO standards and five violations of the previous state 24-hour average TSP standard; in 1983, there was one violation of the federal and state one-hour average ozone standards and four violations of the previous state 24-hour average TSP standard; and in 1982 there was one violation of the federal and state eight-hour CO standard and three violations of the state 24-hour average TSP standard./1/

BAAQMD has conducted two CO "hotspot" monitoring programs in the Bay Area, including San Francisco. One CO monitoring program was conducted during the winter of 1979-80 and included the intersection of Washington and Battery Sts. in San Francisco, about 800 ft. northeast of the site./2/ The high eight-hour average concentration was 10.1 ppm, which violates the 9-ppm state and federal standards by 1.1 ppm. The high one-hour average concentration is 15 ppm does not violate the 20-ppm state standard or the 35-ppm federal standard. Another CO monitoring program was conducted during the winter of 1980-81 and included the San Francisco intersections of Geary and Taylor Sts., about 0.8 miles southwest of the site, and 100 Harrison St. at Spear, about one mile southeast of the site./3/ At Geary and Taylor the observed high eight-hour average concentration was 11.5 ppm, which violates the standards by 2.5 ppm, and the high one-hour concentration was 15 ppm, which does not violate standards. At Harrison St., the observed high eight-hour and one-hour average concentrations were 7.8 ppm and 13 ppm, respectively, which do not violate standards. These data indicate that locations in San Francisco near streets with high traffic volumes and congested flows may experience violations of the eight-hour CO standard under adverse meteorological conditions.



Comparison of these data with those from other BAAQMD monitoring stations indicates that San Francisco's air quality is among the least degraded of all the developed portions of the Bay Area. Two of three prevailing winds, westerly and northwesterly, blowing off the Pacific Ocean, reduce the potential for San Francisco to receive pollutants from elsewhere in the region.

San Francisco's air quality problems, primarily CO and TSP, are due largely to pollutant emissions from within the City. CO is a non-reactive pollutant and its major source is motor vehicles. CO concentrations are generally highest during periods of peak traffic congestion. TSP levels are relatively low near the coast, increase with distance inland, and peak in dry, sheltered valleys. The primary sources of TSP in San Francisco are demolition and construction activities, and motor vehicle travel over paved roads.

San Francisco contributes to regional air quality problems, including ozone, which affects other parts of the Bay Area. Ozone is not emitted directly from sources, but is produced in the atmosphere over time and distance through a complex series of photochemical reactions involving hydrocarbon (HC) and nitrogen oxide (NOx) emissions, which are carried downwind as the photochemical reaction occurs. Ozone standards are exceeded most often in the Santa Clara, Livermore, and Diablo Valleys, because local topography and meteorological conditions favor the build up of ozone and its precursors there.

In 1982, motor vehicles were the source of 86% of the CO, 46% of the HC, 44% of the TSP, and 56% of the NOx emitted in San Francisco, while power plant fuel combustion was the largest single source of sulfur oxides (SOx), about 33% of the total./4/ These percentages are expected to apply reasonably well to current conditions.

In response to the Bay Area's ozone and CO non-attainment designations, the Association of Bay Area Governments (ABAG), BAAQMD, and the Metropolitan Transportation Commission (MTC) prepared and adopted the 1982 Bay Area Air Quality Plan, which establishes pollution control strategies to attain federal ozone and CO standards by 1987 as required by federal law./5/ These strategies were developed on the basis of detailed subregional emission inventories and projections, and mathematical models of pollutant behavior, and consist of stationary and mobile source emissions controls and transportation improvements. The BAAQMD, MTC, and California Bureau of Automotive Repair (a state agency) have primary responsibility for implementation of these strategies.

NOTES – Air Quality

/1/ State standards for particulate matter changed in 1983 to concentrate on fine particulate matter which has been demonstrated to have health implications when inhaled. Concentration standards also changed. There is not yet an adopted method for monitoring fine particulate matter. Until the State adopts a method, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards.

/2/ Association of Bay Area Governments, AQMP Tech Memo 33, "Summary of 1979/1980 Hotspot Monitoring Program," Berkeley, California, June 1980.

/3/ Association of Bay Area Governments, AQMP Tech Memo 40, "Results of the 1980/1981 Hotspot Monitoring Program for Carbon Monoxide," Berkeley, California, January 1982.

/4/ Bay Area Quality Management District (BAAQMD), "Base Year 1982 Emissions Inventory, Summary Report", San Francisco, California, November 1, 1983.

/5/ Association of Bay Area Governments (ABAG), BAAQMD and MTC, 1982 Bay Area Quality Plan, Berkeley, California, December 1982.

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IV. ENVIRONMENTAL IMPACTS

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An application for environmental evaluation for the project was filed on February 27, 1985. On March 14, 1986, on the basis of an Initial Study, the Department of City Planning, Office of Environmental Review, determined that a tiered Environmental Impact Report was required. Issues determined as a result of the Initial Study to require no further environmental analysis include: Land Use, Reflected Light and Glare, Population (except project specific-employment), Operational Noise, Air Quality during Construction, Utilities/Public Services, Biology, Geology/Topography, Water, Energy/Natural Resources, and Hazards. Therefore, this document does not discuss these topics (see Appendix A, p. A-2 for the Initial Study).

This tiered EIR has been prepared for the project pursuant to Sections 21093 and 21094 of the California Environmental Quality Act (CEQA). The EIR is tiered from the EIR for the Downtown Plan (EE81.3, Final EIR certified October 18, 1984). The 343 Sansome St. EIR analyzes project-specific impacts. It discusses potentially significant effects of the project that were not examined in the Downtown Plan EIR and includes applicable mitigation measures for site-specific effects. The analysis identifies the project portion of the relevant cumulative impacts forecast in the prior EIR.

The Downtown Plan EIR process included development of a complex and sophisticated economic forecast of employment growth, and computerized transportation and air quality models for calculating and predicting cumulative impacts of development in the downtown C-3 districts to the year 2000. Development of the forecast and transportation and air quality models, and presentation of their analyses in the EIR required several years of work. The Downtown Plan EIR, from which this later single-project EIR is tiered, includes about 600 pages of Comments and 400 pages of Responses to those comments. The Downtown Plan Final EIR was certified October 18, 1984.

The Downtown Plan, itself, was approved by the Planning Commission on November 29, 1984, and its implementing ordinances were approved by the Board of Supervisors (Ordinance 414-85 approved September 10, 1985), effective October 17, 1985. The approval process thus took place over about 12 additional months subsequent to the



EIR process and included public hearings and testimony. Discussion of, as well as explanation and clarification of issues and information in, the Downtown Plan EIR included exhaustive review in public forums, during the EIR process and the Plan approval process, before the Planning Commission and the Board of Supervisors.

The Downtown Plan EIR forecasts and analyzes the effects of cumulative development (including those of the project) in the Downtown C-3 district, to the year 2000. That analysis remains current and valid for future and project conditions, and thus, the project is not subject to CEQA Section 21166 regarding changed circumstances or new information.

As noted, the EIR cumulative impact analysis relies on the Downtown Plan EIR (DTPEIR) cumulative impact analysis, and that analysis remains valid. The current validity or "freshness" of the DTPEIR assumptions and analysis was recently established in the Final EIR (FEIR) for 235 Pine St. (84.432E, certified April 17, 1986). The material contained in the 235 Pine St. Draft Summary of Comments and Responses, at pp. 9-21, 25-30, 32-38 and 54-59 is summarized below and incorporated by reference herein.

The 235 Pine St. EIR Comments and Responses discuss the current validity of the Downtown Plan EIR assumptions and analysis with regard to development and land use forecasts, employment growth, transportation impacts, office rental and vacancy rates and housing production. The DTPEIR forecasts are considered to be long-term forecasts that focus on the amounts and types of growth expected through the year 2000. No attempt was made to forecast on an annual or short-term basis, and the long-term forecasts include a number of shorter-term ups and downs which average out over time. In general, it was concluded in the 235 Pine FEIR that no new data or information are available that would indicate that the long-term forecasts prepared for the DTPEIR are substantially off-target or misleading. With regard to the more specific issues such as transportation impacts, office vacancy rates, housing impacts, etc., it was concluded that the assumptions in the DTPEIR remain valid and the analysis remains current.

Thus, for example, it was concluded that the recent drop in gasoline prices in early 1986 was temporary and would not cause long-term shifts in mode split from transit to auto use. This is due not only to the temporary nature of the gas price drop (as of June 1986, prices are on the increase again) but also to the fact that bridges and freeways providing

access to San Francisco were generally at or near capacity during the p.m. peak at the time the DTPEIR baseline analyses were done, and are expected to continue to be at or near capacity, with increases in peak-of-the-peak over time (235 Pine Comments and Responses, p. 26; DTPEIR Vol. I, pp. IV.E. 32 & 34). While driving may temporarily appear attractive to some commuters, length of time of commute would deter others or cause shifts to carpools or transit by other drivers in the "push-pull" relationship between traffic congestion and transit ridership (see 235 Pine Comments and Responses, p. 27).

It was also concluded that housing completions in San Francisco were about 940 units in 1983-84 and about 1,000 units in 1985. These figures fall squarely within the DTPEIR forecast of 600-1,500 units per year on average (235 Pine St. Comments and Responses, p. 54). Similarly, the recent increase in office vacancy rates was forecast in the DTPEIR which anticipated that space approved in the mid- late 1980's would not be absorbed by 1990 (see 235 Pine St. Comments and Responses, pp. 21 and 34; DTPEIR Vol. 1, pp. IV.B. 23-29; Vol. III, Part 1, pp. C&R-B. 10-11).

Comments on this single-project EIR for 343 Sansome St. are to be confined to those matters analyzed in this EIR, related to project-specified effects and the relationship of this project to relevant cumulative impacts. Insofar as the Downtown Plan EIR is a final, certified document, it would be inappropriate to reopen the EIR process by accepting further comments on that EIR. Therefore, comments on material contained in the prior EIR from which this project-specific EIR is tiered will not be accepted.

Some of the effects presented in this Impact Chapter are not physical effects as defined by CEQA. They are included in the EIR for informational purposes only.

As discussed in the Initial Study, the project would be consistent with the Downtown Plan policies and ordinances for which a Final EIR (EE81.3) was certified October 18, 1984. The project's consistency with these local land use plans meets the CEQA requirements for a tiered EIR.

A. LAND USE AND ZONING

## LAND USE

The following paragraph summarizes material from the Downtown Plan EIR. This summarized material is found on the following pages of the Downtown Plan EIR which are incorporated by reference:

Volume I: Final EIR text. Pages I.B.1–I.C.5; II.8–11; IV.B. 18–90; IV.C.29–61.

Volume II: Appendices. Appendices G and H.

Volume III, Part 1: Responses. Section B.

The Downtown Plan EIR provides forecasts of amounts of space likely to be found in the C–3 District in the future and of the numbers of employees likely to be working in the C–3 District in the future. These forecasts are described in detail; the results are found in the various tables in the EIR. Table IV.B.10, page IV.B.33 shows about 125,243,000 sq. ft. of space in the year 2000, of which about 78.9 million would be in office uses. Table IV.C.15, page IV.C.41 shows total employment forecasts of about 372,000 persons in 2000, in the C–3 District.

The project would be similar to land uses in the site vicinity. It would replace existing office, retail and parking uses at the site with similar uses, at a greater intensity, except that the number of parking spaces at the site would be less than now on the site. The intensification of office uses at the site which would result from the project would continue high-rise office development in the site vicinity.

The 343 Sansome St. project, located within the C–3–0 District, would be consistent with the designated primary use of this District under the Downtown Plan; that is, high-density office and retail (p. 24 of the Downtown Plan). The project would be consistent with the description of the C–3–0 (Downtown Office) district described in Article 2, Section 210.3 of the City Planning Code. The Section states that the district, "playing a leading national role in finance, corporate headquarters and service industries and serving as an employment center for the region, consists primarily of high quality office development."



## THE DOWNTOWN PLAN

The Downtown Plan, part of the Master Plan, effective October 17, 1985, and as implemented by the Planning Code contains comprehensive controls regarding the scale, intensity, and location of growth in downtown San Francisco; architectural preservation; open space; sunlight access; wind criteria; and transportation. The relationship of the project to the major sections of the Downtown Plan is discussed here and summarized in Table 2, p. 60.

Under the Downtown Plan, the basic Floor Area Ratio (FAR) for the C-3-0 district, including the project site, is 9:1. The FAR is the ratio of gross floor area to site size; under the Downtown Plan and Planning Code a number of building uses can be excluded from the gross floor area for the FAR calculation. For example, the Code excludes the following from gross floor area: ground-floor building service and internal circulation; required publicly accessible open space; elevator and mechanical penthouses; accessory off-street parking; child care facilities, cultural, religious and social service areas; and ground-floor retail, restaurant, personal service space up to 75% of ground-floor open space and interior areas and replacement short-term parking (Section 102.8(b)1-16). Development greater than the basic 9:1 FAR is allowable up to a maximum of 18:1 FAR, through Transfer of Development Rights (TDR), from sites within the same zoning district that include architecturally significant buildings with unused potential floor area. The combined basic FAR over the preservation (sender) and development (receiver) sites may not, however, exceed 9:1. The building on the development site receiving TDR must comply with all limitations imposed by the Planning Code, including review under Section 309: Permit Review in C-3 Districts.

The Downtown Plan includes four categories of architecturally significant buildings: Category I (significant buildings, retain essentially intact); Category II (significant buildings, additions to height at rear may be feasible); Category III (contributory buildings, outside a conservation district and of individual importance; encourage retention, allow replacement as contributory building); and Category IV (contributory buildings, in a conservation district, encourage retention; allow replacement as a contributory building). TDRs may not be transferred to sites containing significant or contributory buildings. The buildings on the project site which would be demolished by the project are not listed in any of the categories. The 343 Sansome St. building is listed as a Category III. The

TABLE 2: RELATIONSHIP OF THE PROJECT TO MAJOR PROVISIONS OF THE DOWNTOWN PLAN/PLANNING CODE

|  | <u>Downtown Plan<br/>Requirements/Limit</u>  | <u>Project</u>   |
|--|--|--|
| Height                                 | 346 ft./a/   | 255 ft.  |
| Bulk/b/                                |  |  |
| Base Height (Floors 1-6)               | 86 ft.   | 86 ft.   |
| Lower Tower (Floors 7-13)              |  |  |
| Length                                 | 160 ft.  | 160 ft.  |
| Diagonal                               | 190 ft.  | 201 ft.  |
| Maximum Average Floor                  | 17,000 sq. ft.   | 19,343 sq. ft.   |
| Maximum Floor                          | 20,000 sq. ft.   | 19,600 sq. ft.   |
| Upper Tower (Floors 14-18)             |  |  |
| Length                                 | 130 ft.  | 160 ft.  |
| Diagonal                               | 160 ft.  | 176 ft.  |
| Maximum Average Floor                  | 12,000 sq. ft.   | 11,700 sq. ft.   |
| Maximum Floor                          | 17,000 sq. ft.   | 11,700 sq. ft.   |
| Volume Reduction/b/<br>(above 177 ft.) | 38 %   | 40 %   |
| FAR                                    | 9:1 Basic<br>18:1 Maximum with TDR   | 12.8:1/c/  |
| Open Space                             | 1 sq. ft. per 50 sq. ft. of office and retail space or 6,360 sq. ft. for project, and contribution of \$2.00 times net new office sq. ft. to Downtown Park Fund (\$450,000 for project). | Off-site. Improvement of Leidesdorff St. between Sacramento St. to California St. as a pedestrian mall to create 4,455 sq. ft. (remaining requirement to be fulfilled in a manner to be determined) and contribution to Downtown Park Fund of \$450,000. |
| Art                                    | Public art equal to one percent of construction cost.  | Project would comply.  |
| Child Care                             | On-site child care services, participation in child care consortium or brokerage, or payment of in-lieu fee of \$1.00 times net new office sq. ft. (\$225,000 for project).              | Project would comply by payment of in-lieu fee.  |

(Continued)

TABLE 2: RELATIONSHIP OF THE PROJECT TO MAJOR PROVISIONS OF THE DOWNTOWN PLAN/PLANNING CODE

|                    | <u>Downtown Plan<br/>Limits/Requirement</u>  | <u>Project</u>  |
|--------------------|--|---|
| Shadow             | Minimize substantial shadow impacts on public plazas and other publicly accessible spaces, without unduly restricting development potential; consider duration, area, and importance of sunlight to utility of open space. Proposition K, the Park Shadow Ban Initiative, requires disapproval of any project shading Recreation and Park Department property between one hour after sunrise and one hour before sunset, unless adverse effects of such shadows are found to be insignificant. | The project would shade up to 3% of the western half of Maritime Plaza, for 3 to 15 minutes, in late afternoon for about two weeks in January and two weeks in November. Maritime Plaza, a Recreation and Park managed open space, is currently 97% shaded at these times by existing and approved buildings. The project would complete shading of the western half of the plaza at these times. |
| Wind               | Ground-level winds may not exceed (more than 10% of the time year round between 7:00 a.m. and 6:00 p.m.) 11 mph in areas of substantial pedestrian use and seven mph in public seating areas.  | Project would not cause violations of wind-speed comfort criteria.  |
| Off-street Loading | The equivalent of four spaces (0.1 spaces per 10,000 sq. ft. office and one space for 10,001 to 30,000 sq. ft. retail). Two service loading stalls may be substituted for a full-size loading dock.  | Project would comply with Two truck loading docks and four service loading stalls.  |
| Parking            | Rate structure to encourage short-term use; Planning Commission may approve replacement short-term parking, which would then be exempt from FAR; long-term parking discouraged.  | Project would replace about 210 parking spaces with about 100 parking spaces; parking space would be less than 7% of gross floor area and would not count against FAR; rate structure would discourage long-term parking.   |

(Continued)



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TABLE 2: RELATIONSHIP OF THE PROJECT TO MAJOR PROVISIONS OF THE DOWNTOWN PLAN/PLANNING CODE

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|                         | <u>Downtown Plan<br/>Limits/Requirement</u>   | <u>Project</u>  |
|-------------------------|---|---|
| Transportation Broker   | Required  | Would be provided by building management.   |
| Housing                 | OAHPP requires 87 units for proposed 225,000 net new sq. ft. of office./d/  | Would conform to OAHPP (in-lieu fee contribution for housing development)./d/   |
| Architectural Resources | Designates buildings as Category I to IV based on architectural merit with related provisions regarding preservation. Category III buildings are designated contributory buildings outside a conservation district and of individual importance, encourage retention, allow replacement as a contributory building. | Would remove north- and west-facing walls of the 343 Sansome St. building, designated Category III and retain south and east facades. This building would be incorporated into the new structure. |

#### SECTION 309 EXCEPTIONS REQUIRED FOR THE PROJECT

##### Section 270(d)2(A). Lower Tower Dimensions

Requirement: Maximum diagonal-dimension of 190 ft; maximum average floor size of 17,000 sq. ft.

##### Section 270(d)3(A). Upper Tower Dimensions

Requirement: Maximum length of 130 ft. and a maximum diagonal dimension of 160 ft.

##### Section 155(d). Freight Loading Access

Requirement: Maximum curb cut of 30 ft. for service vehicle access

Exceptions: The maximum diagonal dimension of floors seven through 13 of the lower tower would be 201 ft and the average floor size would be 19,343 sq. ft. The length and diagonal dimension at the upper tower would be 160 ft. and 176 ft., respectively. Exception to the bulk requirements are allowable in accordance with the provisions of Section 309 under Section 272(a) if at least one of the criteria under Section 272(a) 1-5 is met. The project proposes a 45-ft. curb cut.

(Continued)

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TABLE 2: RELATIONSHIP OF THE PROJECT TO MAJOR PROVISIONS OF THE DOWNTOWN PLAN/PLANNING CODE

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/a/ In the 300-S-Height and Bulk District, the maximum height is 300 ft., plus an optional upper tower extension of 10% of building height (Section 263.9(a) and (b)), subject to upper tower volume reduction requirements as specified in Section 270(b)

and (c). An additional height of up to 16 ft. for elevator and mechanical penthouses is allowable under Section 260(b)1(B), for a total maximum allowable height of 346 ft.

/b/ In order to foster sculptured high-rise building tops, the Downtown Plan includes mandatory volume reductions for the lower tower and upper tower segments of a high-rise building.

/c/ Development rights (TDR) would be transferred from as-yet unidentified sites. The FAR on the combined preservation and development sites would be less than or equal to 9:1. The Downtown Plan exclusions from FAR relevant for this project include: mechanical penthouse and other building service space; ground-floor internal circulation areas; ground-floor convenience retail, personal service and restaurant space up to 75% of the area of the ground-floor; accessory off-street parking; and freight-loading areas.

/d/ Office Affordable Housing Production Program (OAHPP) (Ordinance No. 358-85). The existing 343 Sansome St. office building contains about 74,400 sq. ft. of office and the 345 Sansome St. building has about 7,600 sq. ft. of office, for total existing office space of 82,000 sq. ft.; thus the project would add about net new sq. ft. of office space on the site (307,000 - 82,000 = 225,000 sq. ft.).

SOURCE: ESA; Gerald D. Hines Interests; and John Burgee Architects with Philip Johnson

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project would remove north- and west-facing exterior walls and would seismically reinforce interior floors and walls in the existing building; the project would not alter the existing south- and east-facing (Halleck and Sansome Sts.) facades. About 78,800 gsf of TDRs are proposed to be transferred to the project. TDRs would not be used on the lot containing the existing 343 Sansome St. building. Transferor sites have not yet been identified. The overall FAR for the development and transferor lots would be 9:1, or less.

The total floor area of the building, excluding basement levels, would be 343,500 gsf. The gross floor area of the project applicable to the building FAR under the Planning Code would be about 307,000 sq. ft. As calculated under the Planning Code, the FAR of the

project over the 23,901-sq.-ft. development site would be 12.8:1. As noted, mechanical space, accessory off-street parking and freight loading, and ground floor lobby, retail and service uses are excluded from the gross floor area in calculating the FAR. Under Section 204.5(c) of the City Planning Code, seven percent of the total gross floor area of the structure may be allowed as an accessory parking facility, and excepted from FAR calculations; parking area in excess of the seven percent limit would require Conditional Use authorization and would apply to the FAR. Parking provided would be about 21,000 sq. ft., less than seven percent of FAR gross floor area and thus would not require a Conditional Use Permit nor apply to the FAR.

The site is in a 300-S height and bulk district; the height limit is 300 ft. With allowable extensions for reduced volume and mechanical space, the maximum allowable height would be 346 ft. At 255 ft. to the roof, the project would comply with the height limit. The S-Bulk designation controls building dimensions, floor sizes and bulk through Downtown Plan Bulk Control Zone Charts B and C. Essentially, these bulk controls require setbacks, smaller floor sizes and slimmer building profiles with increased building height. The controls require a base zone, of height not exceeding 1.25 times the width of the widest abutting street, in this case, Sacramento St. (which is about 68.75 ft. wide), delineated by a setback, cornice or other architectural feature. The base of the project would be about 86 ft. tall, corresponding to the maximum height of 86 ft. allowed by the controls ( $1.25 \times 68.75 = 86$  ft.).

The project's lower tower would extend from the building base, at about 86 ft., to a height of about 177 ft.; the upper tower would extend above this, with a 16-ft.-tall mechanical penthouse (see Figure 2, p. 22). With a maximum floor area of about 19,600 sq. ft., and a maximum length of 160 ft., the project would be within the lower tower bulk limits for maximum floor area of 20,000 sq. ft., and maximum length of 160 ft.). The diagonal dimension of 201 ft. of the lower tower would exceed the maximum allowable dimension of 190 ft. and the lower tower average floor size of 19,343 sq. ft. exceed the 17,000 sq. ft. limit. For a 255-ft.-tall building with an average lower-tower floor size of about 19,343 sq. ft., the S-bulk controls require a volume reduction in the upper tower (above about 177 ft.) of about 38% with use of an allowable upper tower extension; the project would have a volume reduction of about 40%.

With a maximum and an average upper tower floor area of about 11,700 sq. ft., the project would be within the maximum areas specified by the controls (maximum allowable



average floor size of 12,000 sq. ft. and maximum floor area of 17,000 sq. ft.). The average diagonal dimension of 176 ft., at the upper tower would exceed the maximum of 160 ft. permitted by the controls. The maximum length of 160 ft. would exceed permitted maximum length of 130 ft. The project would require an exception in accordance with the provisions of Section 309, under Section 272, to exceed bulk limitations at both the lower and upper towers, as noted above.

The Downtown Plan requires setbacks above the building base to allow for separation of, and light and air between, towers (Section 132.1(c)1). (This setback is distinct from the upper tower bulk reduction requirements). Above the base, the required setback is a minimum of 15 ft. from the interior property line or the center of a public right-of-way, as the case may be, up to a height of 300 ft.; above 300 ft. the setback requirement increases linearly up to a height of 550 ft., to a maximum of 35 ft. A building 255-ft.-tall would be required to be set back 15 ft. above the 86-ft. base height from the center lines of Halleck and Leidesdorff Sts. The project would be set back above the base about 30 ft. from the western property line (at Leidesdorff St.), and about 60 ft. from the southern property line (at Halleck St.). The project would thus comply with this provision of the Planning Code.

As noted, The sponsor would seek an exception to bulk limits, in accordance with the provisions of Section 309, under Section 272(a)1, 3, 4 and 5 of the City Planning Code.

The Downtown Plan requires usable indoor or outdoor open space, accessible to the public, as part of new downtown development. The ratio of usable open space to new building space in the C-3-0 is one sq. ft. of open space for every 50 sq. ft. of development with an open space requirement, or about 6,360 sq. ft. for the project. The open space must be within 900 ft. of the project site. The project sponsor would comply with the open space requirements of the Downtown Plan by contribution to improvement of the block of Leidesdorff St. between Sacramento and California Sts. as an exclusive pedestrian way; the Downtown Plan designates Leidesdorff as pedestrian/service street, with pedestrian oriented improvements in pedestrian areas only, or in those portions of the right-of-way which are not needed for service; and by contributing \$450,000 to the Downtown Park Fund per Section 139 of the City Planning Code. Improvement of Leidesdorff St. would create about 4,455 sq. ft. of open space. The remaining open space requirement would be fulfilled in a manner to be determined.

The Downtown Plan and the Planning Code require that shadows on publicly accessible open space be minimized (Section 147). New buildings are to be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site, to reduce substantial shadow impacts. Among the factors for the determination of shadow impact are: amount of area shaded; duration of the shadow; and the importance of sunlight to the utility of the type of open space being shadowed. See Chapter IV.D, p. 81, for a discussion of the shadow impacts of the project. Proposition K, the Park Shadow Ban Initiative, as implemented by Section 295 of the Planning Code, requires disapproval of any project shading Recreation and Park Department property between one hour after sunrise and one hour before sunset, unless adverse effects of such shadows are found to be insignificant.

The Downtown Plan/Planning Code requires that the project sponsor provide on-site child care facilities, participate in a consortium with other sponsors or subcontract with a child care brokerage service to provide such service within two blocks of the project site or contribute an in-lieu fee. The project site would not include on-site child care; the project would provide an in-lieu fee of \$1.00 per net office sq. ft., or \$225,000 for the project.

The Downtown Plan/Planning Code requires, and the project sponsor would provide, public art in the project equal to one percent of construction cost.

The Downtown Plan/Planning Code requires the equivalent of four off-street loading spaces for the project. The Code permits substitution of two service vehicle spaces for each freight loading space, if 50% of the freight spaces are provided. Two freight loading spaces would be provided at ground level; four service vehicle (van) loading spaces would be provided in the upper basement level in accordance with Section 153(a)(6) of the Code.

#### SAN FRANCISCO MASTER PLAN

The project would respond to objectives and policies of the Commerce and Industry Element of the Master Plan. It would respond to Objective 1, Policy 1, to "maintain and enhance a favorable business climate in the City." The project would increase on-site employment from about 200 to 300 to about 1,205 jobs; about 4,900 additional jobs in other sectors of the Bay Area economy would result from the project./1/

The project is intended to respond to Objective 4, Policy 2, to promote and attract economic activities of benefit to the City. The project would respond to Objective 6, to support San Francisco as a "prime location for financial, administrative, corporate, and professional activity". The project would respond to Policy 1 of this Objective, to encourage continued growth of downtown office activity.

Policy 2 of Objective 6 guides "office development to maintain a compact downtown core so as to minimize displacement of other viable uses". The project would respond to Policy 2 because it would be located within the downtown Financial District close to a major downtown transit center. The project would respond to Policy 4 of Objective 6 of the Commerce and Industry Element to provide "amenities for those who live, work and use the Downtown" by provision of retail space on the ground level and contribution to improvement of Leidesdorff St., designated as a pedestrian/service street in the Downtown Plan, with street furniture, landscaping, lighting and ornamental paving.

#### NOTE – Land Use and Zoning

/1/ Indirect employment based on A 1980 Hybrid Input-Output Model for the San Francisco Bay Region, Association of Bay Area Governments, April, 1984. A multiplier of 4.04 was used for finance, insurance and real-estate sector jobs.

## B. HISTORIC, ARCHITECTURAL AND CULTURAL RESOURCES

### HISTORIC/ARCHITECTURAL RESOURCES

The 343 Sansome St. Building on the project site is rated Category III (contributory building outside a conservation district, encourage retention, allow replacement as a contributory building) under the downtown controls. This structure received a "B" rating in Splendid Survivors ("A" is highest importance, "D" is minor importance) and a "1" in the 1976 Department of City Planning Architectural Inventory ("0" is lowest rating and "5" is highest). The 345 Sansome St. Building received a "C" rated in Splendid Survivors and a "1" rating from the Department of City Planning. This building is not rated by the Downtown Plan. The 525 Sacramento St. parking garage at the site is not rated in Splendid Survivors, the Downtown Plan or the 1976 Department of City Planning Architectural Inventory.



The 345 Sansome St. and 525 Sacramento St. buildings would be demolished. The project would retain and incorporate the 343 Sansome St. Building as discussed below: The west- and north-facing or 50% of the exterior walls, and elevator core of the existing building (see Figure 12, p. 41) would be demolished. The structural frame of the existing and new buildings would be linked, and the seismic responsiveness of the existing building thus improved. Floors one through 13 and the first basement level (all floors of the existing 343 Sansome Building) would be continuous between the old and new buildings. The south- and east-facing (Halleck and Sansome Sts. walls) exterior walls of the existing building would be retained by the project (see Figures 9, 10, 13 and 14, pp. 38–39 and 71–72). The terra cotta ornamentation on these walls would be repaired as needed and restored to the original 1929 Hyman and Appleton design. Preservation of the south-facing exterior wall would retain the existing appearance of this building from the roof garden of the Bank of California banking temple. The existing building forms a backdrop for this private rooftop open space and for the building itself (see Figure 9, p. 38, and text, p. 37). The east facade of the 343 Sansome building, including the recessed entrance and curvilinear moldings, would also be preserved by the project. Existing aluminum doors, would be replaced with bronze doors and frames similar to the 1929 building design.

The existing lobby would be remodeled, and together with the new tower lobby, would accommodate about 11,000 sq. ft. of retail space, compared to about 500 sq. ft. existing. In the marble entrance lobby, moderne light fixtures and the ceiling floral motif from the 1929 remodeling of the building would be replaced. The polychrome and marble elevators would be removed and replaced by elevators in the new structure.

Alteration of the existing Category III, Contributory, 343 Sansome St. Building, as proposed, would not require a Major Alteration Permit as provided for in Planning Code Section 1111; as Section 1110 would allow the sponsor to elect to proceed without such a permit because no TDR would be transferred from the site. As the 343 Sansome St. building already exceeds 9:1 FAR, no unused FAR is available at this site for TDR.

As described above, about 50% of the exterior walls of the existing 343 Sansome St. building would be removed. The project sponsor is not proposing to apply for tax credits for rehabilitation of an historic structure under the 1982 Economic Recovery Act. 75% of exterior walls of a structure must be retained for such tax credit eligibility.

The project would include improvements to Leidesdorff St. for use as an exclusive pedestrian way between the Financial District and Commercial–Leidesdorff Conservation District (across Sacramento St. from the project site), including lighting, decorative paving and street furniture. The project would have ground-level retail uses on its Leidesdorff St. frontage.

#### CULTURAL RESOURCES

An archaeological resources report titled “343 Sansome St. Project Archival Report” was prepared for the project site by Mason Tillman Associates, consulting archaeologists, and is on file with the Office of Environmental Review, Department of City Planning, 450 McAllister St./1/

The report suggests that there is little likelihood of encountering archaeological resources from the prehistoric period (ca. 800 B.C. to 1775 A.D.) on the project site. During most of the Spanish–Mexican period (1776 to 1849), the site was under water. However, in 1849, Howison’s Pier at the project site was used for docking of warehouse ships. Ships and goods associated with commercial trade may exist beneath fill at the site. The store-ship Thomas Bennett was docked at the pier during this time, within the project site. The final disposition of this ship is not known; there is a possibility that remains from this or other ships might be located at the site. During the Gold Rush period (1849 to 1857), five structures, including an inn and a manufactory, were located at the project site. Other artifacts from this period which could be found at the site include gold-mining implements, hotel artifacts, and building foundations. The project site was continuously developed during (1858 to 1906). Hotel furnishings, bottles, and other commercial objects from this period could be encountered during project excavation. Existing structures at the site were constructed during the Twentieth Century Period (1906 to present).

The proposed project would probably include excavation to about 20 ft. below the surface, about 10 ft. below the existing basement of 343 Sansome St. Building and which would disturb soils probably not exposed since 1847. Construction to this depth would not occur under the existing 343 Sansome St. building. The existing single basement would be maintained under this building and made a part of the first basement level of the remainder of the project, and an additional basement parking level would be developed under the remainder of the site. Excavation and piledriving for the proposed new tower

might intrude upon remains of the Spanish–Mexican, Gold Rush, City Building, and Twentieth Century Periods and might irretrievably damage such resources. Further investigation would be needed to determine means of preserving or removing resources intact, if they were encountered (see mitigation measures, p. 118).

#### NOTES – Historic, Architectural and Cultural Resources

/1/ Mason Tillman Associates, "343 Sansome Street Project, Archival Report," August 1985. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.

#### C. URBAN DESIGN

The project would demolish and replace the one-story 345 Sansome St. office building and the four-story 525 Sacramento St. parking garage with a high-rise office building. The south and east facades and structural interior of the existing 13-story 343 Sansome St. office building would be retained and incorporated into the project (see Figures 13 to 16, pp. 71–74).

The proposed 255 –ft.–tall new tower portion of the project would be taller than the 70–ft.–tall Bank of California building south of the site, and the 50–ft.–tall Sun building north of the site, and would be taller than the 148–ft.–tall 350 Sansome St. building to the east of the site. The project would be shorter than the 318–ft. Bank of California tower (adjoining the banking temple) on the south, the 350–ft.–tall California First Bank building (southeast of the site), and the 378–ft.–tall 456 montgomery St. building (one-half block west of the site). The new tower would be shorter than the 47-story 345 California St. building, located one block southeast of the site, and the 42-story One Embarcadero Center building, located one block east of the site. The 180–ft. existing 343 Sansome tower is intermediate in scale between older and newer buildings in the area.

The Urban Design Element of the San Francisco Master Plan contains policies and principles which may be used to evaluate the proposed project. Table 3, pp. 75–79, the Relationship Between Applicable Urban Design Policies of the Master Plan and the Proposed Project, compares the project to these policies.

The Sansome St. facades of the old and new towers would be visually separated by use of different materials and window patterns. The new tower would have a grey granite





343 SANSOME  
(existing)

NEW TOWER  
(proposed)

SUN BUILDING

## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

FIGURE 13  
PHOTOMONTAGE OF PROJECT  
FROM SANSOME STREET NORTH  
OF SACRAMENTO STREET



NEW TOWER  
(proposed)

WELLS FARGO BANK BUILDING  
LEIDESDORFF ST.

## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

FIGURE 14  
PHOTOMONTAGE OF PROJECT  
FROM SACRAMENTO STREET  
WEST OF LEIDESDORFF STREET





VISIBLE PORTION OF PROJECT

343 SANSOME

FIGURE 15  
PHOTOMONTAGE OF PROJECT  
FROM MARITIME PLAZA

NOTE This photo was taken with a wide-angle lens in order to include important features which define the physical context of the project. Such wide-angle views exaggerate perspective and distort straight lines when reproduced on a relatively narrow, flat surface.

SOURCE: ESA





343 SANSOME

SOURCE: ESA

NOTE: This photo was taken with a wide-angle lens in order to include important features which define the physical context of the project. Such wide-angle views exaggerate perspective and distort straight lines when reproduced on a relatively narrow, flat surface.

FIGURE 16  
PHOTOMONTAGE OF PROJECT FROM  
SACRAMENTO/WAVERLY INTERSECTION

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TABLE 3: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE MASTER PLAN AND THE PROPOSED PROJECT

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URBAN DESIGN PLAN POLICIES

Objective 1, Policy 1 – “Recognize and protect major views in the City, with particular attention to those of open space and water.” (p. 10)

Objective 1, Policy 3 – “Recognize that buildings, when seen together, produce a total effect that characterizes the City and its districts.” (p. 10)

Objective 1, Policy 6 – “Make centers of activity more prominent through design of street features and by other means.” (p. 12)

Objective 2, Policy 4 – “Preserve notable landmarks and areas of historic, architectural, or aesthetic value, and promote the preservation of other

RELATIONSHIP OF PROJECT TO POLICIES

The project site is at Sacramento and Sansome Sts. The project would not block views along Sacramento St. from Nob Hill or along Sansome St. from Telegraph Hill; it would not obstruct any public views of the Bay or of the Ferry Building at the foot of Sacramento St. The project would partially obstruct views along Sacramento St. of Nob Hill from public open space at the podium-level plazas of Four Embarcadero Center.

The proposed 255-ft.-tall new tower portion of the project would be taller than the 70-ft.-tall Bank of California building south of the site, and the 50-ft.-tall Sun building north of the site, and would be taller than the 148-ft.-tall 350 Sansome St. building to the east of the site. The project would be shorter than the 318-ft.-Bank of California tower to the south, the 350-ft.-tall California First Bank building southeast of the site, and the 378-ft.-tall 456 Montgomery St. building (one-half block west of the site). The 185-ft. existing 343 Sansome tower, which would be retained, is intermediate in scale between older and newer buildings in the area.

The project would increase the visual prominence of the site. It would include ground-level retail space on its four street frontages and would improve Leidesdorff St. as an exclusive pedestrian way linking the Financial District and Commercial-Leidesdorff Conservation District. Art work would be included in the project.

The 345 Sansome St. building, not rated in the Downtown Plan, and rated C by Heritage and 1 in the DCP Survey, would be demolished. The existing 343 Sansome St.

Continued.



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TABLE 3: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE MASTER PLAN AND THE PROPOSED PROJECT, Continued

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URBAN DESIGN POLICIES

buildings and features that provide continuity with past development". (p. 25)

Objective 2, Policy 5 – "Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings."

Objective 2, Policy 6 – "Respect the character of older development nearby in design of the building". (p.25)

Objective 3, Policy 1 – "Promote harmony in the visual relationships and transitions between new and older buildings." (p. 36)

RELATIONSHIP OF PROJECT TO POLICIES

building on the site, rated Category III under the downtown controls, B by Heritage and 1 in the DCP Survey would be retained and seismically upgraded by the project. The north- and west-facing exterior walls of the building would be removed and the south and east facades retained; the building would be incorporated into the new structure. Through the use of TDR, the project would preserve a significant or contributory building elsewhere in the C-3 District.

The project would retain the architectural features of the south and east facades of the Category – III 343 Sansome St. building. The west and north walls, to be removed, do not include decorative architectural features. Damaged terra-cotta ornament near the base and parapet would be repaired or replaced. The Sansome St. doors would be replaced with doors similar to the 1929 brass doorframes.

The arched bays at street level are intended to relate to those of the Sun building north of the site. The bay windows beginning at the third level would provide an element intended to relate to the belt course at the third floor of the existing 343 Sansome building. The light-colored granite facade would be similar to that of the Bank of California banking hall south of the site.

The project would retain and incorporate the south and east exterior walls and remodel the interior of the Category III 343 Sansome St. Building. The proposed 255-ft.-tall new tower would be intermediate in height compared to buildings in the immediate vicinity; it would be about 70 ft. taller than the existing 185-ft. 343 Sansome building (see the discussion under Objective 1, Policy 3 above). The projecting bay windows on east

Continued,



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TABLE 3: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE MASTER PLAN AND THE PROPOSED PROJECT, Continued

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URBAN DESIGN POLICIES

RELATIONSHIP OF PROJECT TO POLICIES

Objective 3, Policy 1 – cont.

and north facades of the new tower would provide surface details intended to relate the facade elements of the 343 Sansome building. Arched bays at the base are intended to reflect design elements of the Sun building, to the north.

Objective 3, Policy 2 – “Avoid extreme contrasts in color, shape, and other characteristics which will cause new buildings to stand out in excess of their public importance.” (p. 36)

Arched bays at the ground level, bay windows, and 18th floor cornice, are design elements found in older development in the area. The building’s rectangular shape would be similar to other nearby buildings, such as the Bank of California tower. The predominant gray-granite exterior of the building is intended to match the color of the Bank of California banking temple.

Objective 3, Policy 3 – “Promote efforts to achieve high quality of design for buildings to be constructed at prominent locations.” (p. 36)

The project would have a defined base, an articulated facade, and an architectural style intended to establish a strong relationship to the Category III 343 Sansome St. building and other older buildings in the area. The project would be located within the heart of the Financial District.

Objective 3, Policy 4 – “Promote building forms that will respect and improve the integrity of open spaces and other public areas.” (p. 36)

The project sponsor would improve Leidesdorff St. between Halleck and Sacramento Sts. as a pedestrian mall, and would also contribute to the Downtown Park Fund.

Objective 3, Policy 5 – “Relate the height of buildings to important attributes of the City pattern and to the height and character of existing development”. (p. 36)

The new tower would be taller and more visible than existing structures along the west frontage of Sansome St., north of Bush St. The tower would be taller than older buildings such as the four-story Sun building to the north and the Bank of California banking hall to the south and the existing 13-story 343 Sansome building. This 19-story building would be intermediate in scale among newer high-rise buildings in the vicinity, such as the 20-story California First Bank building, the 25-story 456 Montgomery St. building and the 47-story 345 California St. building.

Continued,

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TABLE 3: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE MASTER PLAN AND THE PROPOSED PROJECT, Continued

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URBAN DESIGN

Objective 3, Policy 6 – “Relate the bulk of buildings to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction.” (p. 37)

RELATIONSHIP OF PROJECT TO POLICIES

The project would require exceptions under Planning Code Section 272 to exceed the upper tower maximum length and diagonal dimensions, and the lower tower diagonal dimension and average floor size required for the project site; it would be within all other bulk limits designated for the site. The upper tower would have a volume reduction of about 40% (a 38% reduction is required).

DOWNTOWN PLAN-URBAN FORM POLICIES

“Relate the height of buildings to important attributes of the city pattern and to the height and character of existing and proposed development.” (p. 84)

See the discussion under Objective 1, Policy 3, p. preceding, relating to the building’s height compared to neighboring structures.

Foster sculpturing of building form, less overpowering buildings and more interesting building tops.” (p. 84)

The new building would be set back from Leidesdorff St., and would feature an architecturally detailed top. Reduction of the appearance of bulk would be addressed primarily in facade articulation and color on the Sansome and Sacramento Sts. frontages as opposed to building set backs. Examples of this approach are the Merchandise Mart at Market St. between 9th and 10th Sts., and the Hunter-Dulin building at 111 Sutter St.

“Maintain separation between buildings to preserve light and air and prevent excessive bulk.” (p. 96)

The project would be set back by about 30 ft. above the base from the property line at Leidesdorff St. and by about 60 ft. above the lower tower from the Halleck St. property line, in excess of the setbacks of 15 ft. from the center of a public right-of-way required above the base; the top of a 255-ft.-tall building is required to be set back at least 15 ft. from the center of a public right of way. The project would thus be within the minimum Planning Code requirements.

Continued,

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TABLE 3: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE MASTER PLAN AND THE PROPOSED PROJECT, Continued

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DOWNTOWN PLAN-URBAN FORM  
POLICIES

RELATIONSHIP OF PROJECT TO POLICIES

"Assure that new buildings contribute to the visual unity of the City." (p. 105)

The newly constructed building would incorporate a defined base element of similar height to the adjacent Sun building and buildings on the north side of Sacramento St. between Sansome and Montgomery Sts. See also the discussion under Objective 3, Policy 1, above. The new tower is intended to relate to surrounding buildings and the existing 343 Sansome St. building.

"Encourage more variation in building facades and greater harmony with older buildings through use of architectural embellishments and bay or recessed windows." (p. 105)

See the discussion under Objective 3, Policy 1.

"Conserve the traditional street to building relationship that characterizes downtown San Francisco." (p. 106)

The base of the new tower would define a streetwall height relating to existing older development nearby (including the Sun building). The new tower would be built to property lines on the base except for set-backs intended to preserve the individuality of the existing 343 Sansome St. building.

"Maintain and enhance the traditional downtown street pattern of projecting cornices on smaller buildings and projecting belt courses on taller buildings." (p. 107)

The new building would incorporate a projecting cornice above the 18th level on facades facing Sansome, Sacramento and Leidesdorff Sts.

"Use design and materials and include activities at the ground floor to create pedestrian interest." (p. 107)

Ground-floor retail space fronting on Halleck, Leidesdorff, Sansome and Sacramento Sts., and a pedestrian mall on Leidesdorff St. adjacent to the project would create pedestrian interest, where little or none is now provided.

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SOURCE: Urban Design Element, San Francisco Master Plan, 1971; Downtown Plan; Environmental Science Associates, Inc.

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exterior and three columns of bay windows and metallic and terra cotta ornamentation, compared to the terra-cotta exterior and Moderne details of the existing building (see Figures 13 and 14, pp. 71–72).

The base (the architectural base element, not the base as defined by the Code bulk guidelines) of the new tower would be two stories, defined at its top by the beginning of the projecting bay windows, similar in height to the base of the existing building (see Figures 13 and 14, pp. 71–72). Round arch openings, with decorative detailing, in the new tower base are intended to relate to arched elements of the Sun building. Rectangular windows would be located above the arches on the Sacramento St. facade of the new tower, with four pairs of projecting bay windows above. Rectangular windows would separate the bays. The Sansome St. facade would be similar with three sets of bay windows. Floors seven to 13 would comprise the lower tower which, like floors one to six, would have continuous floors with the existing 343 Sansome St. building. Floors 14 to 18 would be the upper tower with a mechanical penthouse on the 19th level. The new tower's top would be articulated by columns, round windows and a projecting cornice at the 18th floor.

The project sponsor would include a work of art (to fulfill the Downtown Plan requirement). Project design elements would be subject to review by the Department of City Planning under Planning Code Sections 309 and 321.

Arched elements of the project base are intended to provide pedestrian interest and scale. The project would include retail use on all four street frontages, and would improve Leidesdorff St. as an exclusive pedestrian way, with street furniture, decorative paving and lighting.

The new tower would not degrade or obstruct any views of the Bay or other open space now observed from public areas. It would partially obstruct views of Nob Hill viewed along Sacramento St. from outdoor open space on the third level of Four Embarcadero Center. The project would block views north from the upper floors of the Bank of California tower; it would block views of the Bay east from the upper floors of the 456 Montgomery St. building. The new tower would be partially visible from Market St. at Sansome St., and from Sacramento St. near Grant Ave. The project would not be visible from long-range view points, such as Twin Peaks, Portrero Hill, or the Bay Bridge, because of existing, intervening high-rise buildings.

D. SHADOW AND WIND

## SHADOW

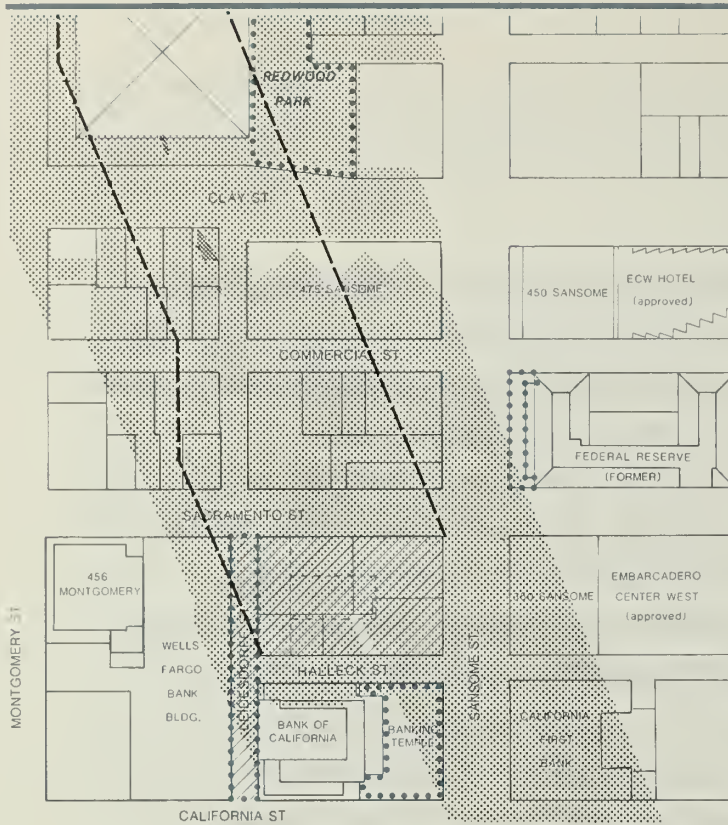
Shadow patterns for existing and approved buildings in the project area (including existing buildings on the site) and the project are shown for 10:00 a.m., noon and 3:00 p.m. for the four seasons: during winter and summer solstices when the sun is at its lowest and highest and during the spring and fall equinoxes when the sun is at its midpoint. (See Figures 17–19, pp. 82, 84–86.) Conditions from July through November mirror the conditions from January through May (using solar time). The analysis includes shadows cast on streets, sidewalks, pedestrian areas, and open space in the area potentially affected by the proposed project. A shadow outline of the project as though cast on the ground, without intervening buildings, is shown to illustrate the scale of the project in relation to the structures that would surround it. The diagrams show existing and approved building shadow and net new shadow from the project. Additional shadow diagrams were drawn at various times during the afternoon hours of all four seasons to determine the effects of the project on Maritime Plaza. See discussion of Open Space and Proposition K on p. 87–88 (These diagrams are on file at the Department of City Planning, 450 McAllister St., San Francisco.)

Open spaces in the project vicinity subject to Proposition K, the Park Shadow Ban initiative, include the Bank of California private roof garden about 50 ft. south of the site, Redwood Park (privately owned, publicly accessible) about 400 feet north of the site, and the Federal Reserve building steps diagonally across Sansome St. about 100 ft. northeast of the site. The Federal Reserve steps are used as lunch-time open space. Open space in the project vicinity subject to Proposition K includes Maritime Plaza, about 500 ft. northeast of the site (privately owned and under Department of Recreation and Park jurisdiction); St. Mary's Square, about 800 ft. southwest of the site; and Portsmouth Square, about 800 ft. northwest of the site (both City parks). The project would provide about 4,455 sq. ft. of new open space by improvement of Leidesdorff St. between Sacramento and California Sts. as a pedestrian mall. Project shadow effects on affected open space are discussed below.

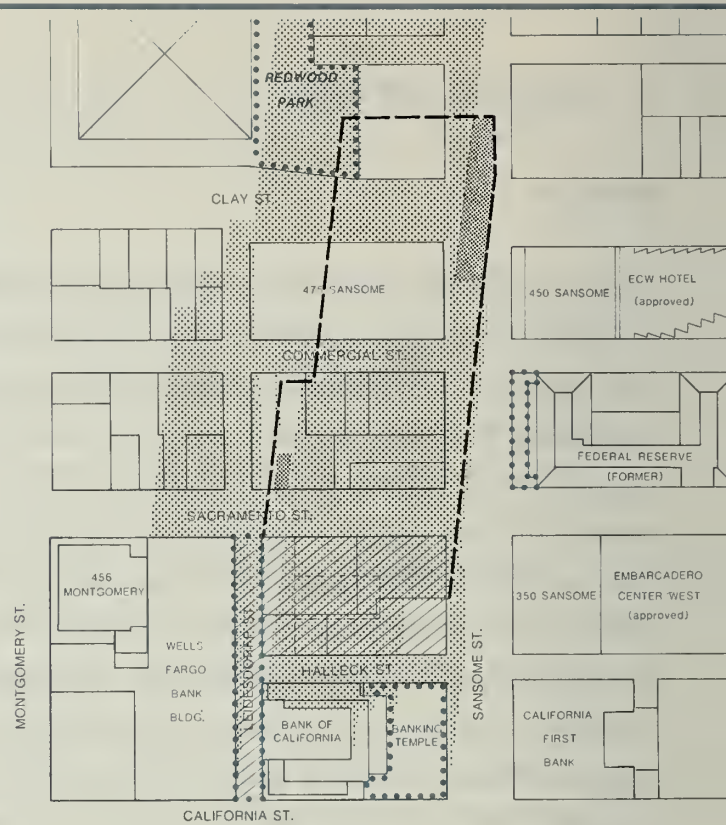
December 21 (PST)

At 10:00 a.m. Pacific Standard Time (PST) on December 21, (see Figure 17, p. 82), the proposed project would add new shadow to rooftops in the vicinity, and to a strip of the

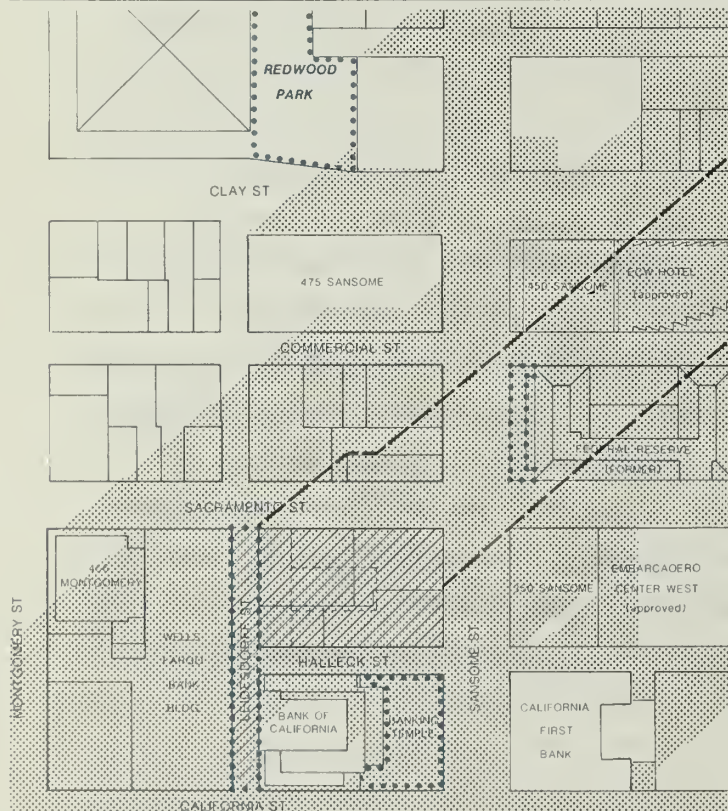




10 A.M. PST



NOON PST



3 P.M. PST

### LEGEND



SHADOWS FROM EXISTING AND APPROVED BUILDINGS



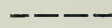
NET NEW SHADOW FROM PROJECT



PROJECT SITE



OPEN SPACE



OUTLINE OF PROJECT SHADOW WITHOUT INTERVENING BUILDINGS



PROJECT OPEN SPACE



343 SANSOME

SOURCE: ESA

FIGURE 17  
SHADOW PATTERNS –  
DECEMBER 21 (10 A.M., NOON, 3 P.M.)



Clay St. sidewalk on the south side of the Transamerica Pyramid. At noon, the project would add shadow to Sansome St. at its intersection with Clay St. and to rooftops of buildings north of the site. At 3:00 p.m., the project would add no new shadow to any streets or sidewalks.

#### March 21 (PST)

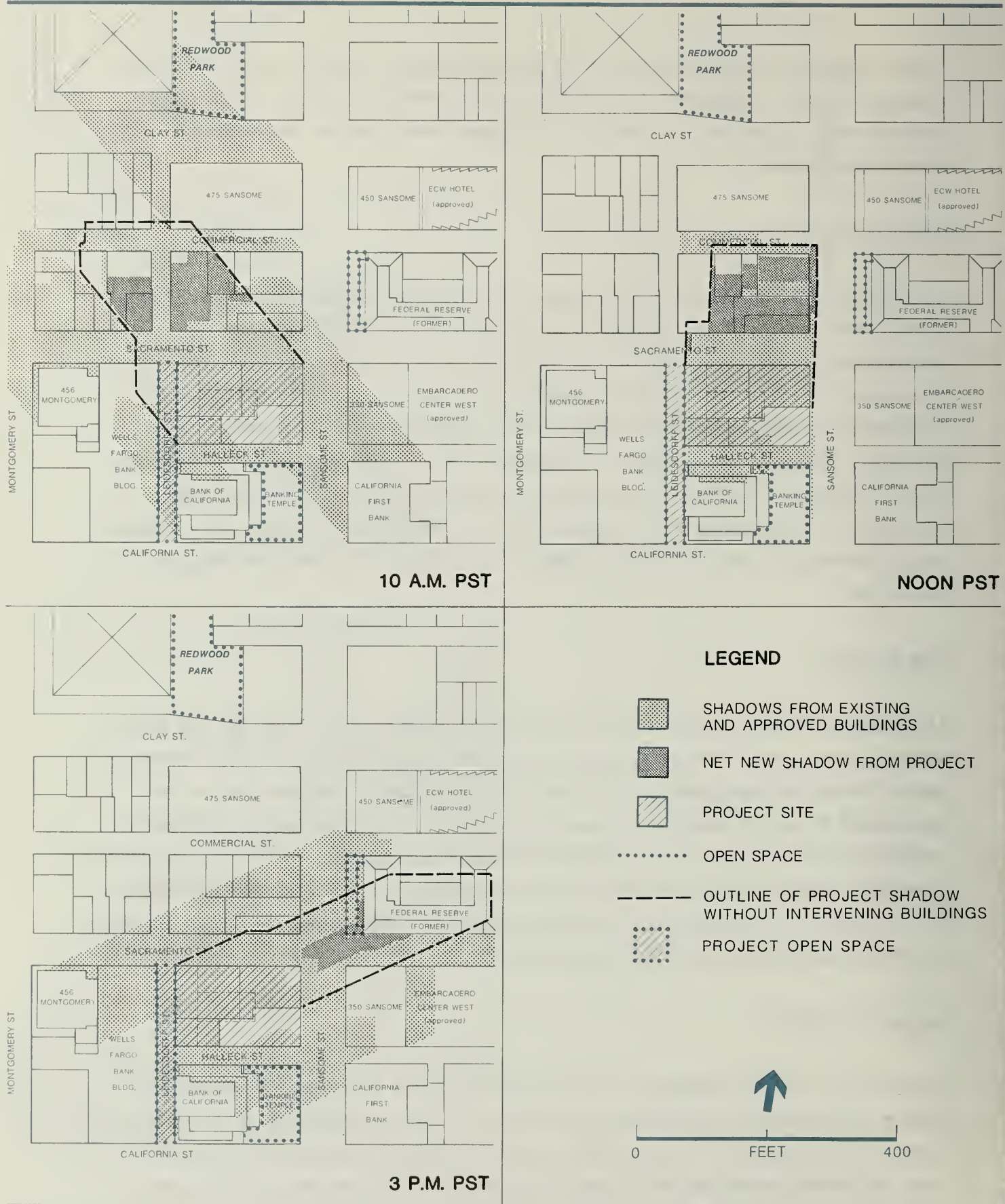
At 10:00 a.m. PST on March 21, (see Figure 18, p. 84) the proposed project would add about a five-ft. strip of new shadow to the sidewalk at the northeast corner of Commercial and Leidesdorff Sts., and to rooftops north and northwest of the site, south of Commercial St. At noon, the project would add a 10-ft.-wide strip of new shadow to Sacramento St. and its northern sidewalk near Leidesdorff St., the west sidewalk of Sansome St. between Sacramento and Commercial Sts. and shade rooftops of buildings north of the site. At 3:00 p.m., the project would shade the Sansome/Sacramento intersection, the southerly end of the steps of the former Federal Reserve Bank building and Sacramento St. and its northern sidewalk from Sansome St. almost halfway to Battery St.

#### June 21 (PDT)

At 10:00 a.m. Pacific Daylight Time (PDT) on June 21 (see Figure 19, p. 85), the project would add new shadow to the Sacramento/Leidesdorff intersection and to Sacramento St. west of the site to Montgomery St. At noon, the project would add new shadow to Sacramento St. and its northern sidewalk north of the site, the Sacramento/Leidesdorff intersection, and to a portion of Leidesdorff St. between Sacramento and Halleck Sts. and its western sidewalk, and to small portions of rooftops on the north side of Sacramento St. At 3:00 p.m., the project would shade Sacramento St. north and east of site, Sansome St. and its east sidewalk near Sacramento, and the Sacramento/Sansome intersection.

#### September 21 (PDT)

At 10:00 a.m. PDT on September 21 (see Figure 20, p. 86), the project would add new shadow to rooftops north and northwest of the site, and to a small area of Montgomery St. north of Commercial St. It would add no other new shadow to streets and sidewalks. At noon, the project would add new shadow to rooftops north of the site, to two strips of Sacramento St. and its north sidewalk. At 3:00 p.m., the project would add new shadow to Sansome St. northeast of the site and to the steps and sidewalks on the west frontage of

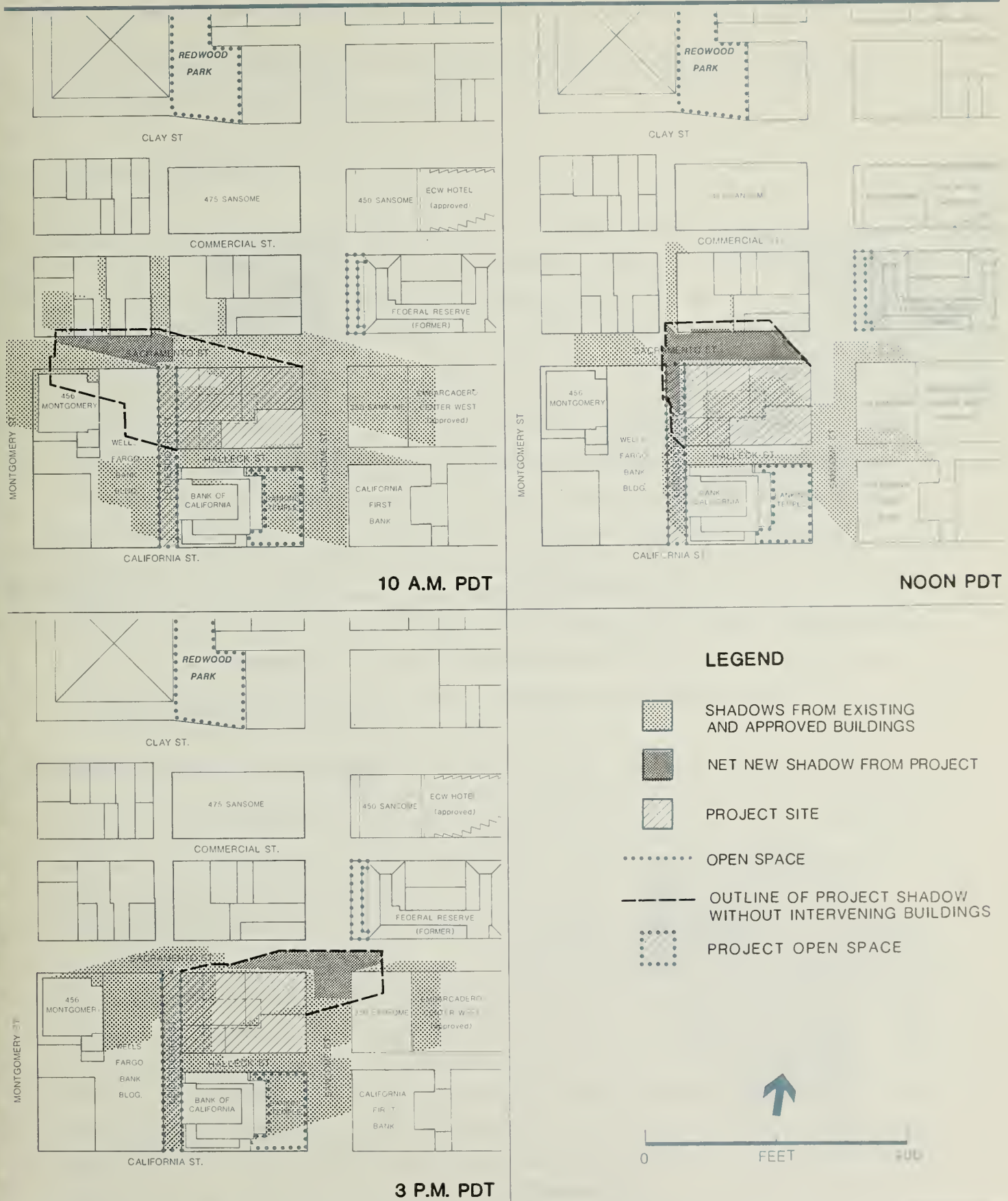


343 SANSOME

SOURCE: ESA

FIGURE 18  
SHADOW PATTERNS -  
MARCH 21 (10 A.M., NOON, 3 P.M.)





343 SANSOME

SOURCE: ESA

FIGURE 19  
SHADOW PATTERNS -  
JUNE 21 (10 A.M., NOON, 3 P.M.)



(This would be expected to yield a conservative estimate of impacts as more people would be expected to use the plaza in September than in November or January.) A total of 22 to 24 persons were in the plaza west of the Alcoa Building at these times. No users were in the area that would be shaded by the 343 Sansome project. In September, the plaza is in sun between 3 p.m. and 4 p.m./1/

#### Proposition K

In June 1984, the voters of the City and County of San Francisco approved Proposition K, the Park Shadow Ban initiative, prohibiting the issuance of building permits for structures that would shade property under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission unless both the commissions determine that such shade would have an insignificant adverse impact on the use of such property.

Maritime Plaza, which the project would shade as described above, is privately owned open space maintained by the Recreation and Park Commission, and the project would be subject to Proposition K. Alternative C, No New Shadow on Maritime Plaza, discussed on p. 137, is a project alternative that would not shade Maritime Plaza at any times specified in Proposition K (one hour after sunrise to one hour before sunset at any time of year).

In summary, worst-case shadow impacts on Maritime Plaza would occur on about January 21 and November 21, at about 4 p.m. PST. On these dates, the new tower would add shadow for up to 15 minutes on up to 3% of the western half of Maritime Plaza, 97% of which will be shaded by existing and approved buildings, thus placing 100% of this area in shadow for up to 15 minutes earlier in the day than under existing conditions.

#### WIND/2/

Prevailing winds in San Francisco are from the northwest, west-northwest, west, and west-southwest. Wind tunnel measurements were made at 24 surface locations near the project site for each of the prevailing wind directions using a scale model of the site, the project and vicinity. The study included separate tests of northwest, west-northwest and west winds under existing conditions and future conditions with the project in place, with a 9:1 FAR Alternative, and with a No Exception to Planning Code: Bulk Alternative. Existing conditions included approved or under-construction projects in the vicinity (Embarcadero Center West and 505 Montgomery St.).

Wind test data were combined with wind records to predict the wind speeds that would be exceeded 10% of the time at each test location. The predicted winds were then compared to the comfort and hazard criteria in the Planning Code, established in the Downtown Plan. (See Appendix B, p. A-35, for a summary of the full wind analysis.) Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time./3/

Existing wind speeds are five to 11 mph at the 24 locations tested. (See Appendix B, Figure B-1, p. A-38, for a figure showing the locations of, and wind speeds at, the test points.) Existing winds at each of these locations meet the appropriate comfort criterion.

The project would cause wind speeds to increase at seven of the 24 test locations (by one to two mph), to remain the same at six locations, and to decrease at 11 locations (by one to two mph). Winds would meet the applicable comfort criterion at all locations. The seven mph comfort criterion for seating areas applies to the steps of the Federal Reserve Building (location 14), where people frequently sit and eat lunch. The project would be expected to reduce wind speeds at this location from seven to six mph.

#### NOTES – Shadow and Wind

/1/ Maritime Plaza User Study for Embarcadero Center, Limited, November 1, 1984. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.

/2/ This section is based on a study entitled Wind Tunnel Study (Addendum) of the 343 Sansome St. Building, February, 1986, prepared by Dr. Bruce White for Environmental Science Associates, Inc., and a letter discussing the effects of the current project design, May 21, 1986. A summary of the report is included in Appendix B, p. A-35; the complete report and letter are on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.

/3/ Equivalent wind speed is an hourly wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians.

#### E. TRANSPORTATION

The transportation analysis below includes a brief summary (summaries) of the materials in the Downtown Plan EIR. This summarized material is incorporated by reference as follows:

VOLUME 1: FINAL EIR TEXT

I. SUMMARY. E. Transportation and Circulation; Travel Demand, Public Transportation, Traffic, Parking, Pedestrian Circulation, Mitigation (pp. I.E.1–I.E.6).

IV. ENVIRONMENTAL SETTING AND IMPACTS OF THE DOWNTOWN PLAN.

E. Transportation and Circulation; Introduction (pp. IV.E.1–IV.E.3); Setting (pp. IV.E.3–IV.E.20); Travel Demand Analysis, Transit, Traffic, Parking, Pedestrian Circulation; Impacts (pp. IV.E.20–IV.E.47): Travel Demand Analysis – 1990 Impacts, 2000 Impacts; Transit – 1990 Impacts, 2000 Impacts; Traffic – 1990 Impacts, 2000 Impacts/ Parking – 1990 Impacts, 2000 Impacts; Pedestrian Circulation – 1990 Impacts, 2000 Impacts

V. MITIGATION OF ENVIRONMENTAL IMPACTS (pp. V.E.1–V.E.30). E. Transportation and Circulation: Annual Growth Rate Limits, Measures Proposed as Part of the Downtown Plan

VI. ALTERNATIVES (pp. VII.E.1–VII.E.4). E. Transportation and Circulation: Travel Demand, Public Transportation, Traffic, Parking, Pedestrian Circulation

VOLUME 2: APPENDICES (pp. J.1–J.38). J. Transportation and Circulation Analyses and Methodologies: Introduction, C–3 District Employer/Employee Survey Travel Demand Analysis, Future Transit Capacities, Service Vehicles, Pedestrian Circulation

VOLUME 3: SUMMARY OF COMMENTS AND RESPONSES (pp. C&R 1–Z.4). Part 1: Responses

The Downtown Plan EIR (Final EIR, EE81.3, certified October 18, 1984) is available for review at the Department of City Planning, the San Francisco main library, and various branch libraries.

DEMOLITION, EXCAVATION, AND CONSTRUCTION TRAFFIC/1/

During the projected 20-month construction period, transportation impacts would result from truck movements to and from the site during demolition, excavation, and construction activity. Demolition and site clearance would require about four to six weeks and excavation would require about four to six weeks. Demolition, site clearance



and excavation would generate an average of about 15 truck movements per day, to and from the project site, between 9:00 a.m. and 3:30 p.m. Trucks would use Sansome St. to the Clay St. on-ramp of the Embarcadero Freeway to haul debris and excavation materials to a disposal site in South San Francisco. After demolition, site clearance and excavation, construction activities (steel erection and finishing) would generate an average of ten truck movements per day during the remaining 17- to 18-month construction period. Deliveries of materials would occur between 9:00 a.m. and 3:30 p.m. Parking impacts from construction workers would occur in proportion to the number of workers driving to the site.

Construction truck access to the site would be from either Halleck or Leidesdorff Sts. The sidewalks on these streets would be closed for about 20 months and pedestrians would be routed through a protected walkway in the curb (parking) lane. Trucks loading in these alleys would block traffic, as there is one lane only on Leidesdorff St. and two narrow lanes on Halleck St.; thus trucks would interfere with other vehicles using the street, including automobiles and trucks loading at other buildings along these streets. Closure of the Halleck St. sidewalk and curb lane would most likely obstruct access to three existing truck loading docks in the Bank of California Building, on the south side of Halleck St. As a result, trucks using these docks would most likely double park to load on Sansome and California during the construction period. If this occurs, congestion may increase and traffic, including transit vehicles, may experience delays.

In addition, the impact of construction truck traffic would be a slight lessening of the capacities of access streets and haul routes because of the slower movements and larger turning radii of trucks. Any truck traffic from 7:00 a.m. to 9:00 a.m. or from 4:00 p.m. to 6:00 p.m. would coincide with peak-hour traffic, particularly at freeway access points, and would worsen service levels. As noted above, truck traffic would be restricted to the hours of 9:00 a.m. to 3:30 p.m. which would avoid such peak period effects.

The Embarcadero Center West project, located on the two blocks east and northeast of the site and 505 Montgomery St., one block west of the site, are under construction. If these projects were still under construction when 343 Sansome St. began construction, truck traffic from the three projects would cumulatively add to congestion on local streets.

As construction loading and access would occur on Leidesdorff and Halleck Sts., there would be no direct interference with Muni lines on Sansome, Sacramento and California Sts. Trucks turning into and out of these streets could delay Muni buses, but this effect cannot be quantified with accuracy.

## PROJECT IMPACTS

### Travel Demand

On the basis of land use trip generation factors, the project would generate about 5,650 net new person trip-ends (pte) per day./2/ Travel generated by existing office and retail uses on the project site, (including the 343 Sansome St. building to be retained and the 345 Sansome St. building to be demolished), about 1,560 pte per day, has been subtracted from the total new travel (about 7,120 pte per day) from the site to give the net new travel from the project./3/ The trip generation calculations include travel to and from the project site by both visitors and employees of the project. Additionally, although expressed on a person trip-end basis, the trip generation includes all travel to and from the project in autos, service vehicles and trucks, on public transit and other modes (i.e., walking, bicycles, taxis, etc.). Projected outbound (peak commute direction) p.m. peak-period and peak-hour trips by mode expected to be generated by the project are shown in Table 4, p. 94. About 780 new outbound trips from the project would occur during the p.m. peak-period, of which about 485 would occur in the p.m. peak hour./4/

Assignments to travel modes for the project have been made on the basis of modal splits from the Downtown Plan EIR (EE81.3) for the years 1984 and 2000./5/ The 1984 modal split has been used for the purpose of identifying impacts at the single-project level (as opposed to impacts at the cumulative level). The year 2000 modal splits have been applied to the project travel for the purpose of comparing project travel with cumulative future travel demand on the transportation systems serving San Francisco. The modal splits used were derived from aggregate data for the C-3 District, the zoning district that contains the project site, and thus represent an average condition. The actual modal split for travel from the project may vary from the C-3 District average. However, because the travel demand forecasts used to derive the average modal split data include the travel from the project, application of the average modal split data to project travel has been assumed to be sufficiently accurate for purposes of comparison.

Parking demand for the 343 Sansome St. project was determined on the basis of the estimated vehicle traffic generated by the project. The project's land uses would create net new demand for about 185 long-term spaces and 20 short-term spaces, for an equivalent net new daily demand of 205 spaces.

The project would respond to Objective 1, Policy 7, of the Transportation Element of the San Francisco Master Plan, to "seek means to reduce peak travel demand." /6/ As required by Section 163 of the City Planning Code, a member of the building management staff would be designated as a "transportation broker" to coordinate measures that are part of a transportation management program, such as: encouraging a flexible time system for employee working hours (to be developed by project tenants in consultation with the Department of City Planning) to reduce peak-period congestion by a planned spreading of employee arrivals and departures; encouraging transit use through the on-site sale of BART, Muni, and other carriers' passes to employees; and encouraging employee carpool and vanpool systems in cooperation with RIDES for Bay Area Commuters by providing a central clearinghouse for carpool and vanpool information.

#### Local Transit

The closest Muni bus stops to the project site are on Sacramento St., at the northwest corner of its intersection with Sansome St., serving the 1-California line, and on Sansome St., at the northeast corner of its intersection with Sacramento St., serving the 30x - Marina Express, 41-Union and 42-Downtown Loop lines. There are no Muni stops on any project frontage. Muni Metro and BART service in the Market St. subway are accessible via the Montgomery St. Station (about three blocks south of the site), and the Embarcadero Station (about four blocks east of the site). Figure 21, p. 95, shows transit routes in the project area. Photographic examples of p.m. peak-hour loadings on Muni vehicles are shown in Appendix C, Figure C-1, pp. A-44 to A-46.

During the p.m. peak hour in 1984, all of the transit agencies were found to be operating in Levels of Service D or better, with the exception of BART Transbay where conditions were found to be at Level of Service F, and Muni in the northwest and southwest corridors, where operations were found to be in Level of Service E. Table C-1, Appendix C, p. A-39, contains descriptions of the various Levels of Service for bus transit. In the p.m. peak hour, the project would generate about 100 new Muni trips and about 75 new BART trips outbound from the project site. Addition of the project p.m. peak-hour Muni



TABLE 4: PROJECTED OUTBOUND TRAVEL DEMAND BY MODE FROM 343 SANSOME ST. PROJECT (pte/a/)

| Travel Mode      | P.M. Peak Period/b/ |         | P.M. Peak Hour/b/ |         |
|------------------|---------------------|---------|-------------------|---------|
|                  | 1984                | 2000/c/ | 1984              | 2000/c/ |
| Drive Alone      | 115                 | 100     | 80                | 65      |
| Car/Vanpool      | 100                 | 105     | 75                | 80      |
| Muni             | 195                 | 180     | 100               | 95      |
| BART             | 115                 | 140     | 75                | 90      |
| AC Transit       | 40                  | 35      | 25                | 20      |
| SamTrans         | 10                  | 10      | 5                 | 5       |
| SPRR (Caltrain)  | 15                  | 15      | 10                | 10      |
| GGT Bus          | 25                  | 30      | 15                | 20      |
| Ferry            | 5                   | 5       | 5                 | 5       |
| Walk Only        | 150                 | 150     | 90                | 90      |
| Other            | 10                  | 10      | 5                 | 5       |
| TOTALS (rounded) | 780                 | 780     | 485               | 485     |

/a/ Person trip-ends.

/b/ The peak hour occurs during the two-hour peak period of 4:00 to 6:00 p.m.

/c/ The year 2000 modal split accounts for changes in travel behavior which are assumed to occur as a result of growth in downtown San Francisco.

SOURCE: ESA

riders to the existing (1984) Muni ridership would not increase the loading ratios on any corridors, and thus would not change the Levels of Service. The number of Muni riders from the project would not be sufficient to affect Muni operations in any of the four corridors. Addition of BART riders from the project to the existing BART ridership would increase the p.m. peak-hour transbay loading ratios slightly (Level of Service F would remain); the project's BART riders would not change the westbay loading ratio or Level of Service.

#### Transit Corridor Analysis

The project would contribute to increases in transit ridership in the major transit corridors leading from downtown San Francisco. Existing peak-period and peak-hour transit ridership would be increased by 0.2. A ridership increase of this magnitude would not be measurable against the day-to-day fluctuations in transit ridership and would not have a noticeable effect on transit levels of service.



Transit capacity increases have been projected in the Downtown Plan EIR based on each transit agency's Five-Year Plan. This is discussed on pp. IV.E.24–IV.E.30 of the Downtown Plan EIR; specific capacity increases for the year 2000 are identified in Appendix J, p. J.26 of the Downtown Plan EIR.

Cumulative development under the Downtown Plan to the year 2000 in conjunction with planned capacity increases of transit carriers would be expected to cause the following changes in transit Levels of Service during the peak period: Muni Northwest Corridor, E to D; BART Transbay, F to E; AC Transit, C to D; Golden Gate Ferry, B to A; Tiburon Ferry, A to B; and Caltrain, B to C.

### Project Transit Costs

Muni. The estimated 1981–82 (most recent available) net marginal cost (or increase in the deficit for Muni operations) per additional ride is \$0.50./7/ This deficit-per-ride figure, because it is a marginal cost, is appropriate for small increases in Muni ridership (such as that requiring one or a few additional vehicle trips). Assessments of costs that would result from cumulative development require the inclusion of additional cost factors and may be best projected using average costs./8/ It is reasonable to conclude that average costs would be significantly higher than marginal costs.

The project would generate about 48,600 peak-period rides per year, which would generate a cost deficit to Muni of about \$24,300, assuming that the cost-per-ride deficit remains the same./9/ (This conclusion should be qualified because the Muni deficit-per-passenger-trip figure is based on 1981–82 data, and because the total project-generated deficit is calculated only for those riders who use Muni as their primary mode of transportation, excluding riders who would use a combination of transportation carriers, such as Muni and Caltrain. More recent data that would allow a more precise estimate of costs are not available.) The project would offset this deficit through its contributions to the General Fund, the Transit Impact Development Fee, and sales tax revenues.

On April 27, 1981, the San Francisco Board of Supervisors approved Ordinance 224–81 establishing the Transit Impact Development Fee (TIDF) to support the additional operating costs and capital improvements for Muni transit services associated with new downtown commercial development. The ordinance established a one-time fee of up to



\$5.00 per gross sq. ft. upon occupancy of new office space within the greater downtown area; the 343 Sansome St. project site is located within the fee assessment area. The TIDF ordinance has been in litigation almost since its inception. On January 4, 1985, the San Francisco Superior Court issued a decision upholding the ordinance. On March 12, 1985, the plaintiffs, a group of downtown property owners, appealed. Money is being collected by the City pursuant to the ordinance, and deposited in an escrow account, pending resolution of the litigation. Under the ordinance, the project would generate about \$1.1 million in one-time fee revenues to Muni. The fee is intended to recover additional transit costs for the entire economic life of a building, and thus cannot be compared directly to the annual Muni deficit discussed above. The fees collected under the ordinance would, however, reduce the amount of General Fund revenue support necessary for existing and future Muni operations.

The project would also offset the Muni annual operating deficit attributable to the project through its contributions to General Fund revenues, which would be derived from a variety of taxes levied on the proposed project. In the past, a portion of General Fund revenues have been allocated to Muni. The historical level of contribution of General Fund revenues to Muni may change, however, due to the recent court decision upholding of the Transit Impact Development Fee. Because of the variable relationship of the sources from which Muni receives operating funds, the annual General Fund contribution from the project to Muni cannot be quantified.

General Objective 1, Policy 6 of the Transportation Element states as a goal to "develop a financing system for transportation in which funds may be allocated without unnecessary restriction for priority improvements according to established policies." (p. 10) The project sponsor has agreed to participate in legally adopted funding measures for Downtown transit funding, proportional to demand created by the project.

BART. For the fiscal year ending June 30, 1985, the average net operating deficit per passenger trip for BART was about \$1.20./10/ On the basis of about 155,500 rides per year, the estimated annual BART deficit attributable to the project would be about \$186,600, assuming that the cost-per-ride deficit is the same./11/ The project would generate a total of about \$19,200 in revenues to BART, including about \$4,200 in property tax revenues, and about \$15,000 from the 75% of the 0.5% transit sales tax allocated to BART. This amount does not include the remaining 25% of the 0.5% BART sales tax

revenue distributed by MTC among BART, Muni, and AC Transit. After subtraction of BART's revenues from sales and property taxes that would be generated by the project, the net operating deficit of BART due to the project would be about \$167,400. BART's operating deficit per passenger is likely to decline in real terms as planned service improvements become operational in the future.

### Pedestrian Movements

There would be two pedestrian entrances to the office lobby on Sansome St. and one on Sacramento St. Ground-floor retail space would have entrances on Sansome, Sacramento, Halleck and Leidesdorff Sts. (see Figure 4, p. 24). As part of the project, the sponsor would contribute to the development of Leidesdorff St. (between Sacramento and Halleck Sts.) as a pedestrian way.

The project at full occupancy would generate about 245 additional pedestrians on sidewalks and crosswalks in the vicinity of the site during the 15-minute peak period of the noon hour, and about 170 additional pedestrians during the p.m. 15-minute period. Pedestrian travel destinations were estimated on the basis of projected major travel modes. Pedestrian trips were assigned to sidewalks and crosswalks on the basis of these destinations.

Operating conditions on sidewalks and crosswalks have been evaluated in terms of pedestrian flow categories or regimen, which relate the density of pedestrians in a specific time period (pedestrians per foot of clear sidewalk width per minute) to the quality of pedestrian flow (the difficulty of maintaining walking paths and speeds on a sidewalk)./12/ Appendix C, Table C-2, p. A-41 shows the relationships among flow rates, walking speed, path choice, and interaction among pedestrians for each flow regime./12/

Appendix C, Figure C-2, pp. A-47 to A-48, shows photographs of sidewalk conditions for each flow regime. Typically, an upper limit for desirable conditions is 14 pedestrians per foot per minute (p/f/m), defined as crowded, although conditions as high as 18 p/f/m, a congested condition in which pedestrians are subjected to extreme crowding, have been documented.

Table 5, p. 99, summarizes pedestrian flow conditions on sidewalks and crosswalks adjacent to the site at the intersection of Sansome and Sacramento Sts. The sidewalks

TABLE 5: PEAK PEDESTRIAN VOLUMES AND FLOW REGIMEN (project side of street)

|  | Total Width<br>(feet) | Effective Width<br>(feet)/a/ | Existing  |                    | Existing Plus Project |                 | 2000  |                    |
|--|-----------------------|------------------------------|-----------|--------------------|-----------------------|-----------------|-------|--------------------|
|  |                       |                              | p/f/m /b/ | Flow<br>Regimen/c/ | p/f/m                 | Flow<br>Regimen | p/f/m | Project<br>Percent |
| <u>NOON PEAK /d/</u>                     |                       |                              |           |                    |                       |                 |       |                    |
| Sacramento St.<br>sidewalk               | 10.0                  | 7.2                          | 0.7       | Unimpeded          | 1.6                   | Unimpeded       | 2.1   | Impeded 44%        |
| Sansome St. sidewalk<br>Crosswalk across | 11.8                  | 7.5                          | 2.1       | Impeded            | 4.1                   | Impeded         | 5.4   | Impeded 37%        |
| Sacramento St.<br>Crosswalk across       | 12.0                  | 12.0                         | 2.6       | Impeded            | 3.4                   | Impeded         | 4.5   | Impeded 18%        |
| Sansome St.                              | 8.0                   | 8.0                          | 2.3       | Impeded            | 3.5                   | Impeded         | 4.6   | Impeded 27%        |
| <u>P.M. PEAK/d/</u>                      |                       |                              |           |                    |                       |                 |       |                    |
| Sacramento St.<br>sidewalk               | 10.0                  | 7.2                          | 0.5       | Unimpeded          | 1.1                   | Unimpeded       | 1.5   | Unimpeded 43%      |
| Sansome St. sidewalk<br>Crosswalk across | 11.8                  | 7.5                          | 2.9       | Impeded            | 4.3                   | Impeded         | 5.6   | Impeded 24%        |
| Sacramento St.<br>Crosswalk across       | 12.0                  | 12.0                         | 3.2       | Impeded            | 3.8                   | Impeded         | 4.9   | Impeded 11%        |
| Sansome St.                              | 8.0                   | 8.0                          | 1.4       | Unimpeded          | 2.3                   | Impeded         | 3.0   | Impeded 29%        |

/a/ The effective width is the narrowest portion of the sidewalk and is calculated by subtracting the space taken by poles, planter boxes, people standing at windows, etc., from the total width.

/b/ Pedestrians per foot of effective sidewalk width per minute.

/c/ See Table C-2 and Figure C-2, Appendix C, p. A-41, A-47 to A-48 for descriptions of pedestrian flow regimens.

/d/ Peak 15-minute periods.

SOURCE: ESA



and crosswalks adjacent to the project site currently operate in unimpeded and impeded conditions during both the peak noon 15-minute period and 15-minute p.m. peak period./13/ Conditions on the sidewalks and crosswalks adjacent to the project following addition of the project pedestrian travel to the existing (1985) volumes would be the same as at present except for the crosswalk across Sansome St. in the p.m. peak 15-minute period. Conditions there would worsen from unimpeded to impeded.

The project would have one 48-ft. curb-cut for garage and loading access, located on Halleck St. The existing garage has an entrance on Sacramento St. and exits on Halleck and Leidesdorff Sts. The project would improve pedestrian safety slightly, as vehicle-pedestrian conflicts would be reduced as the proposed garage would be about half the size of the existing garage, and because of the elimination of the entrance on Sacramento St. and the exit on Leidesdorff St.

Sidewalks and crosswalks adjacent to the project would operate in the year 2000 in the impeded range during the noon peak. The project pedestrian traffic would represent about 44% and 37% of the pedestrian volumes on the Sacramento St. sidewalk and Sansome St. sidewalk, respectively. Project pedestrian traffic would represent about 18% and 27% of the pedestrian volumes on the crosswalks across Sacramento St. and Sansome St., respectively.

P.M. peak-hour operations in the year 2000 would be in the impeded range, with the exception of the Sacramento St. sidewalk. The Sacramento St. sidewalk would operate in unimpeded conditions. Project pedestrian traffic during the p.m. peak hour would represent about 43% and 24% of the pedestrian volumes on the Sacramento St. sidewalk and Sansome St. sidewalk, respectively. Project pedestrian traffic during the p.m. peak hour would represent about 11% and 29% of the pedestrian volumes on the crosswalks across Sacramento St. and Sansome St., respectively. Although, as noted above for some cases, conditions would be in the impeded range, there would continue to be adequate facilities for pedestrians on the sidewalks and crosswalks in the study area.

##### Local Intersection Traffic

The project would provide about 100 short-term parking spaces in the basement, with access from Halleck St. A net total of 110 spaces would be eliminated (there are

currently 210 spaces on the site). Project-related parking, loading and service vehicle traffic would result in increases in traffic at intersections in the downtown, including intersections in the immediate project vicinity. As the project would result in a net reduction of on-site parking spaces, the overall number of cars from the site would be reduced. Vehicles currently using the existing facility, and new vehicular traffic generated by the project that would not be accommodated by project parking, would be expected to use other parking in the downtown area; this traffic would be dispersed to intersections throughout the area.

The project would eliminate the existing garage entrance on Sacramento St. (the existing exit is on Halleck St.). Vehicles would enter and exit the project garage from Halleck St. via Sansome St. As Leidesdorff St. would no longer be open to traffic, vehicles exiting the garage would no longer use it to enter Sacramento St. Based on observation of operation of the existing garage and considering the reduction in the number of on-site parking spaces and closure of Leidesdorff St., there would be an additional 15 vehicles going through the intersection of Sansome/Sacramento Sts. from on-site parking with the project./14/ Additionally, the closure of Leidesdorff St. to autos would result in a redistribution of traffic; vehicles now entering the street from California St. (about 90 during the p.m. peak hour) would most likely use Sansome St. going through the intersections of Sansome/California Sts. and Sansome/Sacramento Sts. Both of these intersections presently operate at Level of Service A (excellent conditions) and would continue to operate at Level of Service A with the redistribution in traffic from the closure of Leidesdorff St./14/

Should Leidesdorff St. remain open, the number of cars from the site using the Sacramento/Montgomery Sts. and Sansome/Sacramento Sts. intersections would be reduced, because the project garage would contain fewer spaces than the existing garage.

#### Freeway On-Ramp Analysis

Traffic operations for two intersections serving freeway on-ramps near the project site are shown in Table 6, p. 102). The project would incrementally contribute to traffic at freeway on-ramps during the p.m. peak hour. The intersection of Mission and Beale Sts. currently operates in Level of Service E conditions. The intersection of Clay and Battery Sts. currently has Level of Service C conditions during the p.m. peak hour. Operation at

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TABLE 6: PROJECTED PEAK-HOUR INTERSECTION VOLUME-TO-CAPACITY RATIOS (V/C) AND LEVELS OF SERVICE (LOS)/a/

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| Intersection         | 1984 |     | 1984 Plus Project |     | Downtown Plan (2000) |     |
|----------------------|------|-----|-------------------|-----|----------------------|-----|
|                      | V/C  | LOS | V/C               | LOS | V/C                  | LOS |
| Beale & Mission Sts. | 0.92 | E   | 0.93              | E   | 1.05                 | F   |
| Clay & Battery Sts.  | 0.74 | C   | 0.75              | C   | 0.81                 | D   |

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/a/ Level of Service descriptions and relationship to V/C ratios are shown in Table C-3, p. A-42 of Appendix C.

SOURCE: ESA

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Level of Service C represents acceptable conditions, while operations at Levels of Service E and F represents unacceptable delay to motorists.

Project traffic alone would not change the LOS at any freeway on-ramps. Level of Service descriptions are shown in Table C-3, Appendix C, p. A-42. For the year 2000 projections, 1984 traffic volumes were increased by a 19% average growth factor based on the Downtown Plan EIR traffic analysis. The growth factor represents a worst-case, unrestrained auto demand condition for street traffic in the downtown and, as such, is probably higher than actual traffic growth may be in the future in the downtown.

Motorists confronted with increased delays on surface streets would be expected to alter their travel patterns to use less congested routes (to the freeway ramps) or to travel at different times (to avoid periods of traffic congestion). The intersections of Mission and Beale Sts. and Clay and Battery Sts. are at Level of Service E and C, respectively, during the p.m. peak hour. Peak-hour conditions would be expected to deteriorate at both of the intersections by the year 2000 as shown in Table 6, above, to F and D, respectively. Expanded areas of traffic congestion would disrupt surface Muni operations.

Muni operations would be adversely affected by increased congestion. Operation of Muni surface transit routes through the congested areas would be impeded; this would lead to decreased levels of Muni service since scheduled headways would not be met.



### Freeway Corridor Analysis

The project would contribute to increases in traffic on the major freeways serving downtown San Francisco. Both the East Bay and Peninsula corridors would have excess peak-hour demand that would not be met during the peak period. The North Bay corridor would have excess demand in the peak period. Excess auto demand would result in either a spreading of the demand into the hours adjacent to the peak period or in increased transit and ridesharing use should additional transit service (beyond that assumed to occur by the year 2000) or ridesharing incentives be provided.

Traffic generated by the project would increase total traffic on major freeways during the p.m. peak period and the p.m. peak hour by about 0.2%. Such increases would not be measurable against the day-to-day fluctuations in traffic volumes. Because the Bay Bridge p.m.-peak-hour eastbound traffic flow is functionally at capacity, the travel demand from the project would not be expected to increase the flows on the Bay Bridge in the peak hour; rather, the East-Bay-bound auto traffic from the project would most likely compete with and possibly displace existing users of the Bay Bridge into later portions of the peak period. This competition for access would occur at the on-ramps to the Bay Bridge and any displacement of existing users to later time periods would depend upon the time of arrival of project vehicles at the on-ramps. Some drivers would shift to carpools or transit as a result of cumulative displacement.

### OFF-STREET PARKING AND LOADING REQUIREMENTS AND DEMAND

#### Parking

The project would create net new long-term parking demand for about 185 spaces and net new demand for about 20 short-term spaces for a total demand of about 205 equivalent daily spaces. The project would provide 100 parking spaces (all short-term) and eliminate 210 spaces, resulting in an unmet demand of about 315 spaces ( $205 + 210 = 415 - 100 = 315$  spaces).

The estimated parking demand (both long-term and short-term) from the C-3 District in 1984 was found to be about 45,300 spaces, which would occupy about 94% of the 48,000 parking spaces in and near the C-3 District. The short-term parking demand, while representing about 25% of the equivalent daily demand, is about 65% of the daily

vehicle travel. Although the equivalent daily demand would leave about 10% of the parking supply vacant, surges in short-term demand (more travel in one period than in another period) can cause temporary localized overloads of parking facilities within various portions of the downtown, even though parking may be available elsewhere in the downtown.

The Downtown Plan discourages "new long-term spaces in and around the downtown" (p. 126 of Downtown Plan). Downtown Plan parking policies (Policy 7, p. 117) encourage "short-term use of existing spaces within and adjacent to the downtown core by converting all-day commute parking in areas of high demand and encourage provision of needed additional parking in peripheral locations around but not within the downtown core, preferably in the short-term parking belt. . . . "Additional short-term spaces in the area should be created primarily by converting existing long-term spaces to short-term spaces."

The project would replace 210 parking spaces (150 long-term and 60 short-term), with 100 short-term spaces.

The C-3 District would generate demand for approximately 58,000 equivalent daily parking spaces in the year 2000 under the Downtown Plan, an increase of 28% from 1984. Short-term demand would continue to represent about 25% of the total demand. The project parking demand would represent about 0.3% of the total demand from the C-3 District. As noted in the Downtown Plan EIR, the parking supply in the year 2000 has been assumed to increase to about 51,000 spaces. There would be a parking deficit of about 6,000 spaces in that year if vehicular demand occurs as projected. However, the analysis in the Downtown Plan EIR for the year 2000 forecasts excess auto demand in the peak hour and the peak period. If the excess demand is accommodated on transit or by ridesharing; then the overall parking demand would decrease from the above estimate by about 2,300 spaces.

If the Goals of the Downtown Plan are met, total parking demand in the year 2000 would be about 48,100 equivalent daily spaces, about six percent more than in 1984. If the goals were achieved, there would not be a parking deficit.

As required by the City Planning Code, four spaces in the parking garage would be for handicapped parking. Additionally, all remaining parking spaces would be subject to rates

that encourage short-term use and discourage all-day parking; the parking rate schedule would be reviewed and approved by the Department of City Planning, or alternatively, the project sponsor would agree to be bound by a formula, to be developed by the Department of City Planning, which structures rates to favor short-term parking. The project sponsor would also be required to provide five bicycle storage spaces in the parking garage.

### Loading

Table 7, below, shows total service vehicle travel and average hourly service-vehicle demand for the project, based upon data published in Center City Circulation Program: Pedestrian Circulation and Goods Movement./15/ The project would generate about 67 net new service vehicle stops per day. Average hourly loading space needs are given in terms of spaces per hour per 10,000 gsf of building space; average demand for the project would be about 3.3 spaces per hour and peak hourly demand would be 4.1 spaces.

Under Section 152.5 of the City Planning Code, the project would be required to provide three loading docks to serve the 307,000 gsf of office space and one loading dock to serve

TABLE 7: PROJECTED SERVICE-VEHICLE TRAVEL ATTRIBUTABLE TO THE PROJECT/a/

| <u>Use</u> | <u>Space (GSF)/b/</u> | <u>Daily Stops/<br/>10,000 sq. ft.<br/>of GSF/b/</u> | <u>Daily<br/>Stops</u> | <u>Spaces/Hour/<br/>10,000 sq. ft.<br/>of GSF/b/</u> | <u>Average<br/>Spaces/<br/>Hour</u> |
|------------|-----------------------|--|------------------------|--|-------------------------------------|
| Office     | 307,000               | 2.1  | 64                     | 0.1  | 3.1                                 |
| Retail     | 11,000                | 3.0  | 3                      | 0.2  | 0.2                                 |
| TOTALS     |                       |  | 67                     |  | 3.3                                 |

/a/ Service-vehicle travel has been included in total travel calculated for the project.

/b/ Gross square feet of floor space. These calculations include both existing and new floor area; hence, not all the loading demand shown here would be net new; the net new demand created would total 57 daily stops and 2.8 average spaces/hour.

SOURCES: ESA; Department of City Planning, 1980, Center City Circulation Program.



the 11,000 gross sq. ft. of retail space, for a total of four loading docks. The Code allows the substitution of two service vehicle spaces for each required off-street freight loading space, provided that 50% of the required number of spaces are provided for freight loading. The project would have two loading docks located on Halleck St. The Code requires that the first required loading dock have a width of ten ft., a minimum length of 25 ft. and a minimum vertical clearance of 12 ft.; each additional required space must be 35 ft. in length, 12 ft. wide and have a vertical clearance of 14 ft. The dimensions of these docks would conform to these Code requirements. Four van spaces would be provided in the basement parking garage with access from the parking ramp.

The parking ramp would be adjacent to the loading docks on Halleck St. The combined curb-cut of 48 ft. would exceed the allowed 30 ft. curb cut under Section 155(b) of the Code and would require approval under Section 309 of the Code. Section 155(d) of the Code allows up to four freight loading and service vehicle spaces to be accessible directly from a service street or alley such as Halleck St. The loading area would connect with the elevator banks to the office floors. Building directories and signs for the service elevators would be placed in the loading area. Analysis of the proposed Halleck St. loading/service area indicates that standard single-unit trucks would require several maneuvers to use the loading dock, because of the narrow width of Halleck St.

The potential for pedestrian-vehicle conflicts would be increased by the service-vehicle traffic from the project crossing the Halleck St. sidewalk. Pedestrian volumes on Halleck St. are low, so the impact of project service-vehicle traffic would not be as great as it would be in a more heavily traveled pedestrian area, such as Sacramento or Sansome Sts.

#### NOTES – Transportation

/1/ Construction information based on schedule provided by Gerald D. Hines Interests, letter dated January 28, 1986.

/2/ San Francisco Department of City Planning, Transportation Guidelines for Environmental Impact Review: Transportation Impacts, September 1983. This document describes the procedure used to calculate travel demand from the project. Trip generation rates of 18.1 person trip-ends (pte) per 1,000 gsf of office space and 150 pte per 1,000 gsf of retail space were used to generate travel from the project. The two trip generation rates are for independent land uses. When used to generate travel from more than one land use on the same site the rates may overestimate total travel to the site since a portion of the travel from each of the land uses may occur between land uses on

the site and not leave the site. Such trips are referred to as "linked trips." The calculations for this project have not been discounted to account for linked trips and thus present a "worst-case" scenario. The September 1983 Transportation Guidelines are on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.

/3/ Calculation of existing travel demand is per the Transportation Guidelines. .

/4/ The percentage of travel occurring in the peak period and the peak hour are from the Transportation Guidelines. Total travel during each of the periods has been adjusted to show only outbound (leaving the downtown area in the peak commute direction) travel. The outbound travel consists of all of the work-related travel and half of the other (non-work) travel.

/5/ San Francisco Department of City Planning, Downtown Plan Environmental Impact Report, EE81.3, certified October 18, 1984. This document is an analysis of projected growth in the C-3 District to the year 2000 under the Downtown Plan and five alternatives. The transportation analysis in the EIR includes projections of future modal splits for work and other (non-work) travel for the p.m. peak period, peak hour, and daily time periods. This document is on file with and available for public review at the Department of City Planning, 450 McAllister St.

/6/ San Francisco Department of City Planning, January 1983, Transportation, an Element of the Master Plan.

/7/ This deficit-per-ride figure is based upon information provided in: Touche Ross & Co., Transit Impact Development Fee Cost Study, Fiscal Year 1981-82, July, 1983, corrected September 9, 1983, and consultation with Bruce Bernhard, Chief Financial Analyst, San Francisco Municipal Railway, telephone conversations, October 11, 1984 and March 20 and May 13, 1985. The calculation of the peak period marginal deficit (additional cost per ride minus additional revenue per ride) was done by ESA.

/8/ According to Muni, the appropriate technique for determining the costs to Muni of cumulative development is an average cost analysis which would include both capital and operating costs. Application of this technique, however, is limited because relevant capital cost data are not available from Muni. Further, capital costs are difficult to allocate on a person-trip basis, as capital expenditures occur from time to time in large amounts, not necessarily annually. The established method of allocating capital costs is through depreciation, which is based on historical depreciation costs, not replacement costs. Such an estimate would be low in comparison with the costs of new capital improvements required for a single passenger trip. The use of existing capital cost data would underestimate future capital cost needs. Existing Muni accounting statistics do not enable future capital costs to be calculated on a per-passenger-trip basis (Bruce Bernhard, Muni Chief Financial Analyst, telephone conversation, March 25, 1985).

/9/ The deficit due to the project would be: 193 peak-period trips per day x 252 working days per year x \$0.50 deficit = \$24,320. The cost deficit estimate is based on the assumption that essentially all vehicles are operating at capacity during peak periods and additional riders would require new vehicle trips. It was assumed that during off-peak periods, all vehicles operate with excess capacity, resulting in an average off-peak marginal cost of zero. These cost estimates are appropriate for project costs to Muni of a single office building. Assessments of costs that would result from cumulative development require the inclusion of additional cost factors and may be best projected

using average cost data. Muni does not have data that would enable it to estimate the average cost per passenger trip. It is reasonable to conclude that average costs would be significantly higher than marginal costs.

/10/ Ward Belding, Supervisor, Office of Research, BART, telephone conversations, July 12, 1984, October 5, 1984 and September 27, 1985.. The \$1.20 average deficit per trip is based on all operating costs and revenues for the entire system and is not specific to San Francisco trips. Available data from BART does not enable peak and non-peak-period costs to be differentiated.

/11/ 155,500 BART trips per/year x \$1.20 = \$186,600.

/12/ Pushkarev and Zupan, 1975, Urban Space for Pedestrians, Cambridge, Mass., pp. 85-117.

/13/ Pedestrian counts were made by ESA on Thursday, November 14, 1985 from 12 p.m. to 1 p.m. and from 4:30 p.m. to 5:30 p.m.

/14/ Traffic observations on Leidesdorff St. and counts at the intersections of Sansome St. with California and Sacramento Sts. were made on Thursday, June 26, 1986, during the p.m. peak hour of 4:30 to 5:30 p.m.

/15/ San Francisco Department of City Planning, 1980, Center City Circulation and Goods Movement, Working Papers 1, 2 and 3, and Final Report.

#### F. AIR QUALITY

The analysis below includes a brief summary (summaries) of the material in the Downtown Plan EIR. This summarized material is incorporated by reference as follows:

#### VOLUME 1: FINAL EIR TEXT.

I. SUMMARY (pp. I.I.1-I.I.31). I. Air Quality; Short-term Construction Impacts, Long-Term Operation Impacts: Pollutant Emissions, Ozone Concentrations, Carbon Monoxide Concentrations, Total Suspended Particulate Concentrations, Nitrogen Dioxide Concentrations, Sulfur Dioxide Concentrations

IV. ENVIRONMENTAL SETTING AND IMPACTS OF THE DOWNTOWN PLAN. I. Air Quality; Setting (pp. IV.I.1-IV.I.9): Introduction, Existing Regional and Local Air Quality: Ozone, Carbon Monoxide, Total Suspended Particulate, Nitrogen Oxides, Sulphur Dioxide; Air Quality Planning and Forecasting: Ozone Modeling for the 1982 Bay Area Air Quality Plan, Carbon Monoxide for the 1982 Bay Area Air Quality Plan, Carbon Monoxide Modeling for Downtown San Francisco, Other Pollutants. Impacts (pp. IV.I.9-IV.I.19): Short-term Construction Impacts; Long-Term Operation Impacts - Compatibility with Air



Quality Plans, Pollutant Emissions; Ozone Concentrations – 1990, 2000; Carbon Monoxide Concentrations – 1990, 2000; Total Suspended Particulate Concentrations – 1990, 2000; Nitrogen Dioxide Concentrations – 1990, 2000; Sulphur Dioxide Concentrations – 1990, 2000

V. MITIGATION OF ENVIRONMENTAL IMPACTS (pp. V.I.1–V.I.2). Annual Limits on New Commercial Development in the City; Measures Identified by this Report

VOLUME 2: APPENDICES (pp. O.1–O.9). Calculations of Air Pollutant Emissions and Carbon Monoxide Concentrations

VOLUME 3: SUMMARY OF COMMENTS AND RESPONSES (pp. C&R I.1–11). Part 1: Responses

Upon completion, the project would affect air quality in two ways. Emissions would be generated by project-related traffic, and by combustion of natural gas for building space and water heating. Transportation sources would account for over 95% of project-related emissions.

The California Legislature mandated a biennial Inspection and Maintenance (I/M) program which applies to most cars and light trucks in California. This program went into operation in March 1984. An annual I/M program was evaluated in the 1982 Bay Area Air Quality Plan based on the 1979 source inventory. Based on predicted reduction in hydrocarbons and CO of 25% in vehicles covered, a reduction in total motor vehicle-generated CO of about 18% would be expected. The reduction in total regional CO emissions would be about 16%. The reduction in motor vehicle-generated hydrocarbons would be 17%; the reduction in total regional hydrocarbon emissions would be about six percent. Vehicle emission factors used in the model in the Downtown Plan EIR did not take the I/M program into account. To account for reductions from the I/M program, revised emission factors have been input into the revised Modified Linear Rollback (MLR) for this project. This is the same version of the revised MLR method which was developed for the Downtown Plan EIR. By not quantifying predicted reductions from the I/M program, CO emissions were over predicted in the Downtown Plan EIR.

Curbside CO concentrations at selected intersections that would be affected by project-generated traffic and by cumulative development traffic were projected for conservative conditions, and are compared with ambient standards in Table 8, p. 110. In

TABLE 8: EXISTING AND PROJECTED CURBSIDE CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS

| Intersection                  | Averaging Time | Concentrations (ppm)/a/<br>Downtown Plan/b/ |      |
|-------------------------------|----------------|---|------|
|                               |                | 1984  | 2000 |
| California and Montgomery St. | 1-hour         | 12.0  | 8.1  |
|                               | 8-hour         | <u>9.8</u>                                  | 6.4  |
| Battery and Clay St.          | 1-hour         | 13.0  | 8.5  |
|                               | 8-hour         | <u>10.3</u>                                 | 6.7  |

/a/ Calculations for all scenarios were made using a revised version of the Modified Linear Rollback (MLR) method described in the Downtown Plan EIR. Background concentrations were calculated to be 7.4 ppm for one hour and 5.7 ppm for eight hours in 1984, and 5.7 ppm for one hour and 4.1 ppm for eight hours in 2000. Underlined values are in violation of the state or federal CO standards. The one-hour state standard is 20 ppm, the one-hour federal standard is 35 ppm, and the eight hour state and federal standards are 9 ppm. Emission rates were derived from the California Air Resources Board EMFAC6D computer model, as published in the BAAQMD's Guidelines, November 1985. These emissions take into account the reduction in CO as a result of the ongoing Statewide Inspection/Maintenance Program.

/b/ Based on the growth forecast methodology contained in the Downtown Plan EIR. The project would be contained within this forecast.

SOURCE: ESA and Downtown Plan EIR.

2000 the average vehicle is expected to emit less carbon monoxide (CO) than in 1984 due to ongoing state and federal emissions controls.

Currently, the eight-hour CO standard is estimated to be violated at the California and Montgomery and Battery and Clay intersections. CO concentrations are predicted to be less in 2000 than in 1984 and would not violate the standards at the intersections in this future scenario.

As CO concentrations in downtown San Francisco are almost entirely due to motor vehicles, future CO levels are predicted to be lower than they would be without an I/M program. Thus, actual concentrations are expected to be lower than CO concentrations shown in Table 8 and CO and HC emissions shown in Table 9, p. 111, because the Downtown Plan EIR did not take the I/M program into account.

TABLE 9: PROJECTED DAILY POLLUTANT EMISSIONS

| Pollutant       | Emissions (tons per day)/a/ |                          |                     |
|-----------------|-----------------------------|--------------------------|---------------------|
|                 | Project 2000/b/             | Downtown Plan/c/<br>2000 | Bay Area/d/<br>2000 |
| Hydrocarbons    | 0.009                       | 0.6                      | 428                 |
| Nitrogen Oxides | 0.012                       | 0.8                      | 610                 |
| Carbon Monoxide | 0.079                       | 6.6                      | 1,883               |
| Particulates    | 0.019                       | 1.3                      | 649                 |
| Sulfur Oxides   | 0.002                       | 0.1                      | 233                 |

/a/ Project and Downtown Plan emissions calculated using BAAQMD, vehicle emission factors. Emissions of HC, NO<sub>x</sub>, and CO include an assumed six minutes of idling time per vehicle trip. Emissions of TSP include dust disturbed from roadway surfaces.

/b/ Based upon a weighted daily average of 13.3 miles traveled.

/c/ Incremental emissions of C-3 District development, per The Downtown Plan EIR, Table IV.1.2, p. IV.1.12

/d/ Cumulative total emissions of Bay Area development, per ABAG, BAAQMD, MTC, 1982 Bay Area Air Quality Plan, pp. 42, 53, and 112.

SOURCE: ESA, and Downtown Plan EIR

Table 9, above, shows projected daily emissions of pollutants in 2000 from project-generated traffic, projected daily emissions in 2000 for C-3 District development projected by the Downtown Plan EIR (EE81.3, certified October 18, 1984), and total emissions projected for the entire Bay Area by the 1982 Bay Area Air Quality Plan. The project would contribute about 1.3% to the total emissions generated by Downtown Plan development, in 2000.

Emissions of total suspended particulates (TSP) resulting from construction and from vehicle trips generated by the project and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility./1/

The 1982 Bay Area Air Quality Plan contains strategies which consist primarily of HC and CO emission controls on stationary sources and motor vehicles, and transportation improvements, and are aimed at attaining the federal ozone and CO standards. Emissions



associated with the project and with cumulative downtown development under the Downtown Plan are not projected by this EIR or the Downtown Plan EIR to increase ozone concentrations, and thus would not conflict with the objectives of the 1982 Bay Area Air Quality Plan regarding ozone. Cumulative downtown development is projected by the Downtown Plan EIR potentially to result in a violation of the eight hour CO standard at the Brannan/Sixth intersection as analyzed therein. Using the revised emission factors which account for the I/M program in the revised version of MLR contained in the Downtown Plan EIR, the City no longer predicts violations of CO standards at the Sixth and Brannan intersection, or other intersections which have been modeled in the greater downtown. Based on the above, cumulative downtown development would not conflict with objectives of the 1982 Bay Area Air Quality Plan regarding CO.

#### NOTES – Air Quality

/1/ State particulate standards were adopted in 1983 to concentrate on fine particulate matter which, through inhalation, has been demonstrated to have health implications. Until the State adopts a method for monitoring fine particulate matter, it is not possible to determine what proportion of TSP in San Francisco would be subject to review against the new standards, whether new standards would be violated, or what the health implications would be.

#### G. CONSTRUCTION NOISE

Ambient noise in the project vicinity is typical of noise levels in downtown San Francisco, which are dominated by vehicular traffic, including trucks, cars, Muni buses and emergency vehicles. Sidewalk noise measurements taken during the weekday p.m. peak commute time show average noise levels of about 74 dBA Leq on the corner of Sansome and Sacramento Sts./1,2/ The Downtown Plan EIR indicates day-night average noise levels (Ldn) of about 72 dBA along Sansome St. and 73 dBA along Sacramento St. in the vicinity of the project./3/

Project construction would take place over about 19 to 20 months, and would increase noise levels in surrounding areas. Construction noise levels would fluctuate depending on construction phase, equipment type and duration of use, distance between noise source and listener, and presence or absence of barriers between noise source and listener. To estimate probable noise impacts, this analysis assumes typical equipment and construction techniques. Table 10, p. 113, shows typical exterior noise levels associated with the

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TABLE 10: TYPICAL COMMERCIAL/INDUSTRIAL CONSTRUCTION NOISE LEVELS AT 50 FEET FROM THE SOURCE

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| <u>Construction Phase</u> | <u>Duration of Phase/a/ (months)</u> | <u>Average Noise Level (dBA)</u> |
|---------------------------|--------------------------------------|----------------------------------|
| Ground Clearing           | 1-2                                  | 84                               |
| Excavation                | 1                                    | 89                               |
| Foundations/b/            | 2                                    | 78                               |
| Steel Erection            | 7                                    | 85                               |
| Exterior Finishing        | 8                                    | 89                               |

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/a/ Phases of construction would overlap.

/b/ Level is for construction activities other than pile driving (noise levels during pile driving could reach 105 dBA at 50 ft.).

SOURCE: Bolt, Beranek and Newman, December 31, 1971, Noise from Construction Equipment and Home Appliances, U.S. Environmental Protection Agency

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different phases of construction (see Appendix E, p. A-51, for a table of typical noise levels found in the everyday environment). Interior noise levels at 50 ft. from the noise source would be about 10 to 15 dBA less than those shown in Table 10. Closed windows would reduce noise levels by about 20 to 25 dBA below those shown in the table.

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the City Police Code). The ordinance requires that sound levels of construction equipment other than impact tools not exceed 80 dBA at a distance of 100 ft. from the source. Impact tools (jackhammers, pile drivers, impact wrenches) must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. Section 2908 of the Ordinance prohibits construction at night, from 8:00 p.m. to 7:00 a.m., if noise would exceed the ambient noise level by five dBA at the project property line, unless a special permit is authorized by the Director of Public Works.

Project construction would take place in several stages: demolition and clearance, excavation, foundation preparation, frame erection, and exterior finishing. Throughout the construction period there would be truck traffic to and from the site, initially hauling away debris and dirt and then delivering building materials.

The project would require pile driving. Conventional unmuffled and unshielded pile drivers emit noise levels of 100 to 110 dBA at a distance of 100 ft. each time the driver strikes the pile. The Department of Public Works allows pile driving operations under certain conditions, which may include specifying relatively quiet equipment, predrilling pile holes, and/or specifying hours of operation to reduce the number of people exposed. Pile driving would occur intermittently over about eight weeks; hammering would occur during a five- to 15-minute period per pile. Noise levels, when the pile is struck, could reach 105 dBA at 50 ft.

The site vicinity contains mostly office buildings with some ground-floor retail space. The nearest residential units are located about 500 ft. west and northwest of the site along Commercial and Sacramento Sts. between Montgomery and Kearny Sts. During excavation and exterior finishing, noise levels at these residences could reach as high as 59 dBA with windows open and 44 dBA with windows closed. During pile driving, noise levels could reach as high as 75 dBA with windows open and 60 dBA with windows closed. According to the Downtown Plan EIR (EE81.3) the background noise level (Ldn) on this section of Sacramento St. was 73 dBA in 1984 and would be 73 dBA in 1990 and 2000./3/ Therefore, project construction noise would not significantly increase noise levels at these residences.

During excavation and exterior finishing, noise levels in office buildings in the project vicinity could reach as high as 74 dBA with windows open and 59 dBA with windows closed. During pile driving, noise levels in office buildings could reach as high as 90 dBA with windows open and as high as 75 dBA with windows closed.

Vibrations from the impact during pile driving would be felt in adjacent and nearby buildings. These vibrations have been found to be more disturbing to some people than high noise levels. General stress reaction has been observed in humans exposed to brief sounds of 76 dBA./4/ Noise at levels greater than 60 dBA can interfere with normal speech and concentration, noise levels greater than 70 dBA would require workers to close windows or shout to communicate. Intermittent noises, such as pile driving noise, reduce perception of control over the environment. This perceived loss of control frequently results in a depressed mood and depressed motivation. It has also been shown that high noise levels can lead to elevated blood pressure./5/ Repeated impulse and intermittent sounds of high level appear more likely to disrupt performance, than continuous or steady sounds of comparable level./6/



Thus, workers in nearby buildings would experience noise levels during pile driving of up to 75 dBA with windows closed; this would result in workers having to shout to communicate and would make telephone conversations difficult. During other phases of construction, noise levels would reach 74 dBA with windows open, potentially causing workers in nearby buildings to close windows. Generally, noise levels over 60 dBA could be considered a nuisance.

Two other projects, Embarcadero Center West, and 505 Montgomery St., are under construction in the project area. Should any of these projects' construction schedules coincide with that of the proposed project, noise levels would be expected to increase by about 25 dBA to as high as 101 dBA at 50 ft. from the site during activities other than pile-driving. Pile-driving activities would not be expected to be concurrent. Inside office buildings in the project vicinity, noise levels could reach as high 91 dBA with windows open, and 71 dBA with windows closed. These noise levels could cause workers in nearby office buildings to shout to communicate and could interfere with telephone conversations. Should one project be completed and a second begin soon after, noise impacts would be prolonged.

In summary, during the majority of construction activity, noise levels would be expected to be at or below existing levels in the area. There would be times, particularly during the pile driving, when noise would interfere with indoor activities in nearby offices and retail stores.

To reduce construction noise impacts of the project, the sponsor and general contractor would take the following measures: the construction contract would require that the project contractor muffle and shield intakes and exhausts, shroud or shield impact tools, and use electric-powered rather than diesel-powered construction equipment, as feasible, so that noise would not exceed limits stated in the City's Noise Ordinance (Article 29, San Francisco Administrative Code, 1972). The general contractor would construct barriers around stationary equipment such as compressors, which would reduce construction noise by as much as five dBA. The general contractor would locate stationary equipment in pit areas or excavated areas, as these areas would serve as noise barriers.

The project sponsor would require that the construction contractor predrill holes for piles, in order to minimize noise and vibration from pile driving. The actual pounding from pile driving would occur during a five- to eight-minute span per pile. Project sponsor has

agreed to restrict pile driving to hours required by the Department of Public Works. The project sponsor would require that the construction contractor limit pile driving activity to result in least disturbance to neighboring uses. Pile driving would be limited to the hours between 11:00 p.m. and 7:00 a.m. Mondays through Saturdays and 11:00 p.m. and 8:00 a.m. on Sundays to minimize disturbance to the occupants of nearby office buildings. This would require a work permit from the Director of Public Works pursuant to San Francisco Noise Ordinance Section 2907(c) (see Mitigation Measures, pp. 128-129).

### NOTES – Construction Noise

/1/ Noise measurements were taken on Tuesday, November 27 at 4:30 to 4:45 p.m. by ESA. Measurement location was the corner of Sacramento and Sansome Sts.

/2/ dBA is a measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale, which simulates the response of the human ear to various frequencies of sound. Leq, the equivalent noise level, is the average energy content of the noise over a given time period. Ldn, the day-night average noise level, is a noise measurement based on human reaction to cumulative noise exposure over a 24-hour period, taking into account the greater annoyance of nighttime noises; noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise.

/3/ San Francisco Department of City Planning, Downtown Plan Environmental Impact Report (EIR), EE81.3, certified October 18, 1984, Volume 1, pp. IV.J.1-19, particularly Table IV.J.2, pp. IV.J.9-10.

/4/ The Central Institute for the Deaf, Effects of Noise on People, U.S. EPA, 1971.

/5/ Sheldon Cohen, et al., "Cardiovascular and Behavioral Effects of Community Noise," American Scientist, Volume 69, October, 1981.

/6/ National Institute for Occupational Safety and Health, Occupational Exposure to Noise, U.S. Department of Health, Education and Welfare, 1972.

### H. EMPLOYMENT

Approximately 200 to 300 employees currently work at the project site./1/ Employees include banking, office, retail, garage and maintenance workers. Table 11, p. 117, identifies the gross floor area of each tenant on-site. About 92% of the total building office area on-site is currently occupied. 345 Sansome St. is also periodically used as temporary office space by Wells Fargo Bank, the tenant of the 343 Sansome building./1/

The project would accommodate growth of office and retail employment in the C-3 District. Wells Fargo Bank would lease at least one-third of the project office space; it is

TABLE 11: EXISTING USES AT PROJECT SITE AND ESTIMATES OF PROJECT EMPLOYMENT

| <u>Address</u>                | <u>Tenant</u>     | <u>Use</u>                 | <u>Gross Floor Area (square feet)</u> |                                  |              |
|-------------------------------|-------------------|----------------------------|---------------------------------------|----------------------------------|--------------|
|                               |                   |                            | <u>Office</u>                         | <u>Retail</u>                    | <u>Other</u> |
| EXISTING PROJECT USES         |                   |                            |                                       |                                  |              |
| 343 Sansome                   | Wells Fargo       | Bank (office)              | 74,400                                | -                                | -            |
|                               | Pat's Barber Shop | Barber                     | -                                     | 500                              | -            |
| 345 Sansome                   | Wells Fargo       | Office (temporary)         | 7,600                                 | -                                | -            |
| 525 Sacramento                |                   | Parking Garage             | -                                     | -                                | 43,000       |
| TOTAL                         |                   |                            | 82,000                                | 500                              | 43,000       |
| TOTAL PROJECT EMPLOYMENT      |                   |                            |                                       |                                  |              |
| <u>Use</u>                    |                   | <u>Building Space</u>      | <u>Space per Employee /a/</u>         | <u>Estimated Employment</u>      |              |
| Office                        |                   | 307,000                    | 268 /b/                               | 1,145                            |              |
| Retail                        |                   | 11,000                     | 350                                   | 30                               |              |
| Sub-Total                     |                   | 318,000                    |                                       | 1,175                            |              |
| Building Maintenance/Security |                   | 318,000                    | 12,500                                | 25                               |              |
| Parking Garage                |                   | 21,000                     | 5,100                                 | 5                                |              |
| TOTAL                         |                   | 339,000                    |                                       | 1,205                            |              |
| -----                         |                   |                            |                                       |                                  |              |
| NET ADDITIONAL EMPLOYMENT     |                   |                            |                                       |                                  |              |
| <u>Use</u>                    |                   | <u>Existing Employment</u> |                                       | <u>Net Additional Employment</u> |              |
| Office                        |                   | 200 /c/                    |                                       | 945                              |              |
| Retail                        |                   | 1                          |                                       | 30                               |              |
| Sub-Total                     |                   | 201                        |                                       | 975                              |              |
| Building Maintenance/Security |                   | --                         |                                       | 25                               |              |
| Parking Garage                |                   | 5                          |                                       | --                               |              |
| TOTAL                         |                   | 206                        |                                       | 1,000                            |              |

/a/ Gross sq. ft. of building space per employee. C-3 District employment density factors from Downtown Plan EIR, EE81.3, certified October 18, 1984.

/b/ Density for all office activities in 2000, including both management/technical office and trade/customer service office, and incorporating an average five percent vacancy factor.

/c/ 200 to 300 persons work at the site at present. 200 existing employees is used in this table as a conservative estimate of net new project employment.

SOURCE: Recht Hausrath and Associates, Gerald D. Hines Interests, and ESA



expected that office businesses providing management, technical and professional services would occupy the remainder of the space. Over time, the project is expected to be characteristic of all C-3 District office buildings occupied by a mix of corporate and business service firms. Therefore, average overall density factors for the C-3 District (gsf of space per employee) are used to estimate the employment characteristics of the project, as opposed to using any particular tenants which may or may not remain in the building over the long term.

Demolition for construction of the new project would eliminate of the 525 Sacramento Garage. Reconstruction of the existing 343 Sansome St. Building would displace, at least temporarily, Pat's Barber Shop and Wells Fargo Bank offices. Wells Fargo Bank would lease project office space, as noted; Pat's Barber Shop could be accommodated in the new project structure, although no firm plans for this business's future are available.

In total, there would be about 1,205 workers at the project site, consisting of about 1,145 office workers, 30 retail workers, 25 building maintenance/security workers, and five parking garage attendants. The additional space represented by the project would accommodate about 1,000 additional employees in the C-3 District. There would be a net increase of about 945 office employees, a net increase of about 30 retail employees, and a net increase of about 25 building maintenance/security employees. Both of these estimates (total and additional) are presented in Table 11./2/ The difference between the estimate of total employment and the estimate of additional employment is accounted for by the demolition of 345 Sansome Street building and the retention of the 343 Sansome Street building as part of the new project.

Total permanent employment in the C-3 District is forecast to be about 372,000 in 2000 under the Downtown Plan. This forecast represents an increase of about 91,200 C-3 District workers between 1984 and 2000. Total employment in the project would represent about 0.3% of total C-3 District employment in 2000. The additional C-3-District employment accommodated in the project would represent about 0.3% of total C-3 District employment in 2000 and about one percent of the forecast growth in permanent employment.

About 2,120 additional jobs in the Bay Area would result from the employment multiplier effect of project operation. Construction of the new project would require about

305 person-years of construction labor. Construction labor for the project would represent about 0.5% of the total person-years of construction labor forecast for the C-3 District from 1984 through 2000. About 520 additional person-years of employment would be generated in the Bay Area, as a result of the multiplier effect of project construction./3/

The forecast of cumulative C-3-District employment to the year 2000 (of which the proposed project employment is a part) consists of both "basic" economic growth (activities supported by sales to buyers outside the area) as well as the part of the "multiplier" of this growth that occurs in the C-3 District. The multiplier is the economic growth that results from business purchases and the spending of employees and employee households. The project could include both businesses that generated additional C-3-District economic activity and businesses that were part of the multiplier effect of other C-3-District activities.

In addition to the part of the multiplier effects that occurs in the C-3 District, there would be other economic activity generated by business and employee household spending elsewhere in the City and the rest of the region.

#### NOTES - Employment

/1/ Square footages of buildings and number of employees provided by Gerald D. Hines Interests.

/2/ Employment in the project is calculated from the estimates of space by use in the project using employment density factors (gross sq. ft. of space per employee). The employment density factors are those developed in the analysis for the Downtown Plan EIR. (See Downtown Plan EIR, Table IV.C.2, p. IV.C.6 and Table H.3, pp. H.21-H.22) The office employment density factor used here (268 gross sq. ft. per employee) is for total C-3 District office in the year 2000, including both management/technical office and trade/customer service office business activities. It is different from the density factor of 255 gross sq. ft. of occupied space per employee described in the Downtown Plan EIR (see p. IV.C.45), however, because it incorporates an average office vacancy rate of five percent. (See Downtown Plan EIR, note 7, pp. IV.C.55 - IV.C.56.) This density factor (as well as the other for occupied space) is consistent with the Downtown Plan EIR forecasts of employment and space which incorporate an average office vacancy rate of five percent.

The year 2000 density factors are used so the project can be set in the context of cumulative C-3 District development to 2000. Under the Downtown Plan, office

employment densities are expected to increase over time as businesses take steps to use space more efficiently when faced with higher rents. This is reflected in the office employment density used in this EIR. (See Downtown Plan EIR, pp. IV.C.45 and notes 28, 29, and 30, pp. IV.C.60–IV.C.61.)

/3/ Indirect employment projections are based on A 1980 Hybrid Input–Output Model for the San Francisco Bay Region, Association of Bay Area Governments, April 1984. The multipliers used are averages of the employment multipliers contained in that model.

#### I. GROWTH INDUCEMENT

The project would include about 307,000 sq. ft. of office space, 225,000 sq. ft. of which would be net new office space, and about 11,000 sq. ft. of retail space (10,500 net new). Employment at the site would increase to about 1,205 people, from about 200 to 300. Wells Fargo Bank would lease about one-third of the project office space; other occupants of the proposed project are not known, but could include tenants expanding or relocating from other San Francisco locations, tenants relocating from outside San Francisco, and firms new to the Bay Area. The increase in employment at the project site, therefore, would not necessarily represent employment that is new to San Francisco. If the project were fully leased, however, and the office space of the project did not create permanent vacancies in other San Francisco office buildings, total employment in San Francisco could increase by about 1,000 jobs due to the project. Additional jobs also would be supported indirectly in San Francisco through the multiplier effect./1/

If marketed successfully, the project, together with other planned office development, could have growth-inducing effects by demonstrating a market for office space in this area. This could thereby encourage similar development on lots (including smaller lots assembled for development) currently occupied by low-rise or mid-rise buildings containing support services. Such a demand would reflect the trend of growth in service sector and headquarters office activities and employment in San Francisco. Increases in downtown office space and employment would contribute to continued growth of local and regional markets for housing, goods, and services. These growth-inducing effects would be less extensive if the vacancy rate for office space continues to rise. Should this occur, projected increases in downtown employment would be less and the growth in demand for goods, services and housing would be lower.



It is expected that some downtown workers, including some in the project, would want to live in San Francisco. Employment growth, however, would not be reflected directly in increases in demand for housing and city services to residents, as some new jobs would be held by individuals who already live and work in the City; who live in the City but previously either did not work, or worked outside the City; who live in surrounding communities; or who are unable to afford or locate housing in the City. New downtown workers would also increase demand for housing in other parts of the Bay Area.

Any net increase in employment downtown would increase the demand for retail goods and services in the area. The project would intensify this demand by increasing the amount of employment on the site.

Increases in employment downtown would also increase demand for business services, to the extent that the expanded space would not be occupied by firms providing those services. In response, demand would increase for existing space and possibly for further new development.

The project would be built in a developed urban area, and no expansion to the municipal infrastructure not already under consideration would be required to accommodate new development and increased employment due to, or induced by, the project.

#### NOTE – Growth Inducement

/1/ Indirect employment projections are based on A 1980 Hybrid Input-Output Model for the San Francisco Bay Region, Association of Bay Area Governments, April 1984. The multipliers used are averages of the employment multipliers contained in that model.

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V. MITIGATION MEASURES PROPOSED TO MINIMIZE THE POTENTIAL ADVERSE IMPACTS OF THE PROJECT

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In the course of project planning and design, measures have been identified that would reduce or eliminate potential environmental impacts of the proposed project. Some of these measures have been, or would be, adopted by the project sponsor or project architects and contractors and thus are proposed; some are under consideration; and some have been rejected. Implementation of some may be the responsibility of public agencies. Measures under consideration or measures rejected by the sponsor may be required by the City Planning Commission as conditions of project approval.

Each mitigation measure and its status are discussed below. Where a measure has not been included in the project, the reasons for this are discussed.

Mitigation measures below preceded by an asterisk(\*) are from the Initial Study (see Appendix A, pp. A-2 to A-34).

VISUAL QUALITY

MEASURE PROPOSED AS PART OF THE PROJECT

- \*– In order to reduce obtrusive light or glare, the project sponsor would use no mirrored glass on the building.

CULTURAL RESOURCES

- The sponsor would retain the services of an archaeologist. The Environmental Review Officer (ERO), in consultation with the president of the Landmarks Preservation Advisory Board (LPAB) and the archaeologist, would determine whether the archaeologist should instruct all excavation and foundation areas on the project site of the potential for discovery of cultural and historic artifacts, and the procedures to be followed if such artifacts are uncovered.

Given the strong possibility of encountering the remains of cultural or historic artifacts within the project site, prior to the commencement of foundation excavations the project sponsor would undertake a program of archaeological testing. This would consist of observation and monitoring by a qualified historical archaeologist of site clearance of at least any materials below existing grade level, and either the placement of a series of mechanical, exploratory borings or other similar on-site testing methods. The archaeologist would supervise the testing at the site to determine the probability of finding cultural and historical remains. At the completion of the archaeological testing program, the archaeologist would submit a written report to the ERO, with a copy to the project sponsor, which describes the findings, assesses their significance and proposes appropriate recommendations for any additional procedures necessary for the mitigation of adverse impacts to cultural resources determined to be significant.

An historical archaeologist would be present during site excavation and would record observations in a permanent log. The ERO would also require cooperation of the project sponsor in assisting such further investigations on site as may be appropriate prior to or during project excavation, even if this results in a delay in excavation activities.

In addition, a program of on-site construction monitoring by a qualified historical archaeologist, designed to allow for the recovery of a representative sample of the cultural materials existing on the site, would be implemented by the project sponsor. This monitoring and recovery program would result in a written report to be submitted to the ERO, with a copy to the project sponsor.

Should cultural or historic artifacts be found following commencement of excavation activities, the archaeologist would assess the significance of the find, and immediately report to the ERO and the President of the LPAB. Upon receiving the advice of the consultants and the LPAB, the ERO would recommend specific mitigation measures, if necessary. Excavation or construction activities following the preconstruction archaeological testing program which might damage the discovered cultural resources would be suspended for a maximum of four weeks (cumulatively for all instances that the ERO has required a delay in excavation or construction) to permit inspection, recommendation and retrieval, if appropriate.

- Following site clearance, an appropriate security program would be implemented to prevent looting. Any discovered cultural artifacts assessed as significant by the



archaeologist upon concurrence by the ERO and the President of the LPAB would be placed in a repository designated for such materials. Copies of the reports prepared according to these mitigation measures would be sent to the California Archaeological Site Survey Office at Sonoma State University.

## TRANSPORTATION

### MEASURE PROPOSED AS PART OF THE PROJECT

- During the construction period, construction truck movement would be permitted only between 9:00 a.m. and 3:30 p.m., to minimize peak-hour traffic conflicts and to accommodate queueing of Muni buses prior to the peak hours. The project sponsor and construction contractor would meet with the Traffic Engineering Division of the Bureau of Engineering of the Department of Public Works, the Fire Department, Muni and the Department of City Planning to determine feasible traffic mitigation measures to reduce traffic congestion during construction of this project and other nearby projects. To minimize cumulative traffic impacts due to lane closures during construction, the project sponsor would coordinate with construction contractors for any concurrent nearby projects that are planned for construction or later become known.
- The project sponsor would contribute funds for maintaining and augmenting transportation services in an amount proportionate to the demand created by the project, as provided by the Board of Supervisors Ordinance Number 224-81. Should said Ordinance be declared invalid by the courts, the project sponsor has agreed to participate in any subsequent equivalent mitigation measures adopted by the Planning Commission or the City in-lieu thereof, which would apply to all projects similarly situated.
- Within a year of full occupancy of the project, the sponsor would conduct a survey, in accordance with methodology approved by the Department of City Planning, to assess actual trip generation patterns of project occupants and actual pick-up and drop-off areas for carpools and vanpools. The project sponsor would make this survey available to the Department. This measure would provide needed information to aid in transportation planning within the City.

- The project sponsor shall: 1) participate with other project sponsors and/or the San Francisco Parking authority in undertaking studies of the feasibility of constructing an intercept commuter parking facility in a location appropriate for such facility to meet the unmet demand for parking for those trips generated by the project which cannot reasonably be made by transit, and 2) participate with other project sponsors and/or the Municipal Railway in studies of the feasibility of the establishment of a shuttle system serving the project site and the parking facility.
- As required by Section 163 of the City Planning Code, a member of the building management staff would be designated as a transportation broker to coordinate measures that are part of a transportation management program, such as: encouraging a flexible time system for employee working hours to be developed by project tenants in consultation with the Department of City Planning) to reduce peak-period congestion by a planned spreading of employee arrivals and departures; encouraging transit use through the on-site sale of BART, Muni, and other carriers' passes to employees; and encouraging employee carpool and vanpool systems in cooperation with RIDES, for Bay Area Commuters by providing a central clearinghouse for carpool and vanpool information.
- The project sponsor would, in consultation with the Municipal Railway, install eyebolts or make provisions for direct attachment of eyebolts for Muni trolley wires on the proposed building wherever necessary or agree to waive the right to refuse the attachment of eyebolts to the proposed building if such attachment is done at City expense.
- Secure safe bicycle storage facilities would be provided relative to the demand generated by project commuters and short-term visitors.
- Building directories and signs for the service elevators would be placed in the loading area.
- The placement of paving, landscaping or structures in the sidewalk area (subject to City approval) would be done in such a way as to minimize interference with pedestrian traffic.

- Off-street parking spaces would be controlled to assure priority for vehicles driven by the physically handicapped, vehicles using spaces for short-term rather than all-day parking, and vanpool and carpool vehicles. All remaining parking spaces would be subject to rates that encourage short-term use of said spaces and discourage all-day parking; the parking rate would be reviewed and approved by the Department of City Planning, or alternatively, the project sponsor would agree to be bound by a formula, to be developed by the Department of City Planning, which structures rates so as to favor short-term parking.
- The parking driveway would include warning devices (lighted signs and noise-emitting devices) to alert pedestrians to vehicles exiting the structure.
- If project parking were to use a valet system, the project sponsor would ensure that valet parking would not block van spaces or hinder service vehicle access to the basement.

### MEASURES THAT COULD BE IMPLEMENTED BY PUBLIC AGENCIES

- Pacific Gas and Electric Company could coordinate work schedules with other utilities requiring trenching, so that street disruption would take place during weekends and off-peak hours. This should be done through the San Francisco Committee for Utility Liaison on Construction and Other Projects (CULCOP). In-street utilities could be installed at the same time as the street is opened for construction of the project to minimize street disruption.
- The City could implement the transportation improvements described in the Downtown Plan. Cumulative transportation impacts within San Francisco would be reduced by the improvements, and, to the extent that San Francisco could influence transportation improvements recommended by the Plan for areas outside the City, regional cumulative impacts caused by downtown growth would also be reduced.
- The City could act to implement the transportation mitigations described in Vol. 1, Section V.E., Mitigation, pp. V.E.-4-28, in the Downtown Plan EIR. These measures are similar or identical to those in the Downtown Plan and include, in summary: measures to construct and maintain rail rapid transit lines from downtown



San Francisco to suburban corridors and major non-downtown centers in San Francisco; measures to fund Vehicle Acquisition Plans for San Francisco and regional transit agencies to expand existing non-rail transit service; provide exclusive transit lanes on City streets and on freeways; reduce incentives to drive by reducing automobile capacities of bridges and highways in certain circumstances and by discouraging long-term parking; measures to encourage carpools, vanpools, and bicycle use; and measures to improve pedestrian circulation within downtown San Francisco. Some of the Implementing Actions would require approval by decision-makers outside the City and County of San Francisco; many of the measures would require action by City agencies other than the City Planning Commission, such as the San Francisco Public Utilities Commission and/or Board of Supervisors. These measures are system-wide measures that must be implemented by public agencies. Other than project-specific measures, such as the relevant transportation mitigation measures described above as part of the project or the Transit Impact Development Fee Assessment required by San Francisco Ordinance 224-81, which contribute indirectly to implementation of these system-wide measures, it is not appropriate to impose mitigation at system-wide levels on individual projects.

## AIR QUALITY

### MEASURES PROPOSED AS PART OF THE PROJECT

- \*- The project sponsor would require the general contractor to sprinkle demolition sites with water continually during demolition activity; sprinkle unpaved construction areas with water at least twice per day to reduce dust generation by about 50%; cover stockpiles of soil, sand, and other such material; cover trucks hauling debris, soil, sand, or other such material; and sweep streets surrounding demolition and construction sites at least once a day to reduce TSP emissions. The project sponsor would require the general contractor to maintain and operate construction equipment so as to minimize exhaust emissions of TSP and other pollutants, by such means as a prohibition on idling motors when equipment is not in use or when trucks are waiting in queues, and implementation of specific maintenance programs (to reduce emissions) for equipment that would be in frequent use for much of a construction period.

- Measures identified to mitigate traffic impacts would also mitigate air quality impacts. Increasing roadway capacity (where feasible and cost effective), reducing vehicular traffic through increased ridesharing (carpool, vanpool, and transit), and implementing flexible and/or staggered work hours would reduce local and regional emissions of all pollutants.

### NOISE

#### MEASURES PROPOSED AS PART OF THE PROJECT

- The construction contract would require that the project contractor muffle and shield intakes and exhaust, shroud or shield impact tools, and use electric-powered rather than diesel-powered, construction equipment, as feasible, so that noise would not exceed limits stated in the City's Noise Ordinance (Article 29, San Francisco Administrative Code, 1972).
- The project sponsor would require the general contractor to construct barriers around the site and stationary equipment such as compressors, which would reduce construction noise by as much as five dBA and to locate stationary equipment in pit areas or excavated areas as these areas would serve as noise barriers.
- The project sponsor would require that the construction contractor predrill holes (if feasible, based on soils) for piles to the maximum feasible depth, in order to minimize noise and vibration from pile driving. The actual pounding from pile driving would occur during a five- to eight-minute span per pile.

The project sponsor would require that the construction contractor limit pile driving to the hours resulting in the least disturbance to neighboring uses. For nighttime pile driving, this would require a work permit from the Director of Public Works, pursuant to San Francisco Noise Ordinance Section 2907(c). The project sponsor would schedule pile driving so as to disturb the fewest people.

- As recommended by the Environmental Protection Element of the San Francisco Master Plan, an analysis of noise reduction measurements would be prepared by the project sponsor and recommended noise insulation features would be included as

part of the proposed building. For example, such design features could include fixed windows and climate control.

## GEOLOGY/TOPOGRAPHY

### MEASURES PROPOSED AS PART OF THE PROJECT

- \*- A detailed foundation and structural design study would be conducted for the building by a California-licensed structural engineer and a geotechnical consultant. The project sponsor would follow the recommendations of these studies during the final design and construction of the project.
- \*- If dewatering were necessary, any groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this is found necessary by the Industrial Waste Division of the Department of Public Works, to reduce the amount of sediment entering the storm drain/sewer lines.
- \*- Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the soils report would contain a determination as to whether or not a lateral and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater observation wells would be installed to monitor the level of the water table and other instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable subsidence were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Cost for the survey and any necessary repairs to service under the street would be borne by the project sponsor.
- \*- If dewatering is undertaken for the project, the groundwater level in the site vicinity would be monitored. The final soils report would recommend whether or not watering of piles of adjacent structures were necessary. If it were found to be necessary, for



example, if lowering of the groundwater table would threaten wooden pile foundations, reinjection of water would be used to stabilize the groundwater level.

## WATER QUALITY

### MEASURE PROPOSED AS PART OF THE PROJECT

- \*- See the second measure under Geology/Topography, above, for mitigation proposed to prevent sediment from entering storm sewers.

## ENERGY

### MEASURES PROPOSED AS PART OF THE PROJECT

- \*- The project would comply with guidelines of Title 24 of the California Administrative Code.
- \*- A variable-air-volume air conditioning system would control the volume of conditioned air so that the building would maintain a comfortable temperature, efficiently.
- \*- Fluorescent lights with parabolic diffusers would be used to conserve energy and reduce glare. Return air diffuser slots in light fixtures would reduce air conditioning loads by removing part of the heat generated by light fixtures. Whenever possible, office suites would be equipped with individualized light switches, and timeclock operation to conserve electrical energy.
- \*- Natural gas would be used for water heating.
- \*- An airside cooler would be used for cooling whenever the outside air is below building temperature.
- \*- A water economizer cycle system using condenser water to generate chilled water would be installed, so that in hot weather the heat exchangers would cool the water without using excessive amounts of electricity.

- \*- The project would incorporate low-flow plumbing to conserve electricity.
- \*- A carbon monoxide monitoring system would control garage ventilation to avoid unnecessary operations of fans.

#### MEASURE UNDER CONSIDERATION BY PROJECT SPONSOR

- \*- The sponsor is considering performing a thorough energy audit of the structure's actual energy use after the first year of occupancy and implementing all cost-effective alterations to the structure's energy system identified in the audit. Results of the audit would be made available to the City. The decision whether to implement this measure would be made after completion of the building when energy use could be accurately measured and a determination of efficiency of energy consumption could be made. If it is determined that the dollar amount of energy savings that could be achieved through the alterations would cover the cost of installation, then this measure would be implemented by the sponsor.

#### HAZARDS

#### MEASURES PROPOSED AS PART OF THE PROJECT

- \*- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project plan would be reviewed by the Office of Emergency Services and implemented by building management insofar as feasible before issuance by the Department of Public Works of final building permits.
- \*- To expedite implementation of the City's emergency response plan, the project sponsor would prominently post information for building occupants concerning what to do in the event of a disaster.

UTILITIES/PUBLIC SERVICES

MEASURES PROPOSED AS PART OF THE PROJECT

- The project would include on-site storage for trash containers in the basement. Containers would not be placed on streets or sidewalks except during actual trash pickup.

MEASURE UNDER CONSIDERATION BY PROJECT SPONSOR

- The project could provide containers to collect and store recyclable solid waste (such as glass, metal, computer cards, and newspaper) and the project sponsor could contract for recycling service. The project sponsor will make a decision about this measure during final building design based on cost effectiveness.



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VI. SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

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This chapter is subject to final determination by the City Planning Commission as part of its certification process for the EIR. Chapter VI of the Final EIR will be revised, if necessary, to reflect the findings of the Commission.

This chapter identifies significant impacts that could not be eliminated to an insignificant level by mitigation measures included as part of the project, or described in Chapter V., Mitigation Measures, p. 122.

No project-specific significant impacts have been identified. Mitigation measures included as part of the project are described in Chapter V., Mitigation Measures, pp. 122-132.

Cumulative development in downtown San Francisco would have a significant effect on the environment in that it would generate cumulative traffic increases as well as cumulative passenger loadings on Muni, BART and other regional transit carriers. These cumulative transportation impacts could cause violations of the total suspended particulate (TSP) standard in San Francisco with concomitant health effects and reduced visibility. The proposed project would contribute to these cumulative effects.

In the past, EIRs for projects in downtown San Francisco have found cumulative effects due to potential violations of carbon monoxide (CO) standards in San Francisco. CO was overpredicted in these EIRs due to the unquantified reductions in vehicle emissions from the I/M program which were not previously accounted for. When these emission reductions are accounted for, as has been done in the cumulative analysis for CO in this EIR, there would no longer be predicted violations to CO standards due to cumulative downtown development in San Francisco.

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## VII. ALTERNATIVES TO THE PROPOSED PROJECT

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This chapter identifies alternatives to the proposed project, discusses environmental impacts associated with these alternatives, and gives the reasons the alternatives were rejected in favor of the project. Regardless of the sponsor's reasons for rejection, the City Planning Commission could approve an alternative instead of the proposed project if the Commission believed the alternative would be more appropriate for the site. See Table 12 for a summary comparison of the project with the alternatives.

Table 12, p. 135 compares Alternatives B, C, D, E and F with the project.

### A. ALTERNATIVE A: NO PROJECT

This alternative would entail no change to the site. The proposed project would not be built there. The existing unrated 525 Sacramento St. parking garage, with 210 parking spaces, and 345 Sansome St. office building (rated C by Heritage and 1 in the 1976 DCP Inventory), which are proposed for demolition, would be retained. The existing Category III 343 Sansome St. building would remain in its existing condition, two walls would not be removed, and it would not be seismically upgraded and restored, as is proposed by the project.

The environmental characteristics of this alternative would be generally as described in the Environmental Setting chapter of this report (see Chapter III, Setting, p. 30–54, for a discussion of existing conditions). Transportation and noise effects associated with the demolition of the on-site buildings and building construction would not occur.

Transportation, transit, noise, and air quality conditions as described in Chapter IV, Impacts, pp. 55–121, as base conditions with cumulative development, but without the project, would exist in the site vicinity. There would be no change in the demand from the site for energy or community services. There would be no potential effects on cultural resources, and the existing 343 Sansome St. building would not be altered. Employment on the site would not increase as it would with the project from about 200–300 to about 1,205 jobs. Revenues from, and costs of, the project would not result.

TABLE 12: SUMMARY COMPARISON OF PROJECT WITH ALTERNATIVES B, C, D, E, AND F

|   | <u>Project</u> | <u>Alt. B</u> | <u>Alt. C</u> | <u>Alt. D</u> | <u>Alt. E</u> | <u>Alt. F</u> |
|---|----------------|---------------|---------------|---------------|---------------|---------------|
| FAR   | 12.8:1         | 9:1           | 11.4:1        | 12.8:1        | 10.7:1        | 12.8:1        |
| Penthouse Height (ft.)                            | 255            | 177           | 216           | 280           | 216           | 255           |
| <u>Use Areas</u>                                  |                |               |               |               |               |               |
| Office (sq. ft.)                                  | 307,000        | 215,110       | 271,000       | 307,000       | 255,000       | 307,000       |
| Retail (sq. ft.)                                  | 11,000         | 11,000        | 11,000        | 11,000        | 11,000        | 11,000        |
| Parking, Mechanical, and Storage (sq. ft.)        | 53,100         | 50,900        | 52,000        | 53,100        | 53,100        | 12,600        |
| Total Gross Floor Area                            | 371,100        | 277,010       | 334,900       | 371,100       | 319,100       | 330,600       |
| Number of Floors                                  | 19             | 13            | 16            | 21            | 16            | 19            |
| Required Open Space (sf)                          | 6,360          | 4,522         | 5,658         | 6,360         | 5,320         | 6,360         |
| Open Space Provided:                              |                |               |               |               |               |               |
| On-Site   | 0              | 0             | 0             | 0             | 0             | 0             |
| Off-site  | 4,455          | 4,455         | 4,455         | 4,455         | 4,455         | 4,455         |
| <u>Relationship to Downtown Bulk Requirements</u> |                |               |               |               |               |               |
| Needs Bulk Exception                              | Yes            | Yes           | Yes           | No            | No            | Yes           |
| <u>Other Features</u>                             |                |               |               |               |               |               |
| Child Care  | Yes            | Yes           | Yes           | Yes           | Yes           | Yes           |
| Art   | Yes            | Yes           | Yes           | Yes           | Yes           | Yes           |
| Need TDRs   | Yes            | No            | Yes           | Yes           | Yes           | Yes           |
| (sq. ft.)   | 78,800         | 0             | 43,700        | 78,800        | 26,800        | 78,800        |
| Shadows on Maritime Plaza                         | Yes            | No            | No            | More          | No            | Same          |
| Federal Reserve Steps                             | Yes            | Less          | Less          | More          | Less          | Same          |
| Housing Units                                     |                |               |               |               |               |               |
| Requires (OAHPP)                                  | 87             | 51            | 73            | 87            | 67            | 87            |
| Potential Jobs                                    | 1,205          | 860           | 1,080         | 1,205         | 1,020         | 1,200         |

SOURCE: Environmental Science Associates, Inc. and Gerald D. Hines Interests

Land uses, urban design, site views, shadows, and winds would not change. The increase in parking demand and reduction of parking supply that would result from the project would not occur.

This alternative could result in development of other office space, possibly a high-rise building comparable to the project, at another location. Alternative development within



the San Francisco Downtown area would result in many of the same impacts as described for the project. The effect of development would depend largely on the location chosen and cannot be determined accurately. This alternative would preserve the option to develop a similar or different type of building on the site in the future.

This alternative was rejected by the project sponsor because it would not restore and seismically upgrade the existing 343 Sansome St. building and would not utilize the TDR mechanism, which promotes preservation and restoration of other historic buildings in the C-3 district. Additionally, this alternative was rejected because it would not provide a return on investment to the sponsor and would not use the development potential of the site allowable under the Downtown Plan.

### B. ALTERNATIVE B: NO TRANSFER OF DEVELOPMENT RIGHTS, 9:1 FAR

The project as proposed (with an FAR of about 12.8:1) would include the transfer of about 78,800 gross square feet of development rights from as yet unidentified sites. This alternative considers a building without TDR. The FAR of this alternative would be 9:1, the basic allowable FAR.

This alternative would include about 215,110 gsf of office space (133,100 net new) compared to 307,000 gsf (225,000 net new) for the project. The building would be 13 stories tall (about 177 ft. in height) compared to 19 stories (about 255 ft.), and would feature fewer setbacks, as these are generally required by the Downtown Plan at higher heights; thus, this shorter alternative would have a bulkier form than the project. Lobby, retail, and parking space, as well as the ground floor design, would remain the same as for the project. Under the Downtown Plan, the ground floor, with retail, circulation and building service areas, would not be applicable to the FAR. As with the project, parking would be accessory and would not be applicable to the FAR.

This alternative would retain the south and east facades of the existing 343 Sansome St. building and seismically upgrade the building, as would the project. The potential for disruption of cultural artifacts would be similar to that of the project. Net transportation, air quality, and energy effects would be about 40% less than with the project. Shadow effects would be reduced on the Federal Reserve Bank steps and eliminated on Maritime Plaza.

Wind and construction noise impacts and urban design effects would be similar to those of the project, or perhaps slightly less. As the alternative would be three stories shorter than the project, it would be less visible. This alternative would provide employment for about 860 employees, compared to about 1,205 with the project.

The sponsor has rejected this alternative because it would not provide for the development potential permitted for the site under the Downtown Plan and would not utilize TDR, which promotes restoration and preservation of historic structures in the C-3 District.

#### C. ALTERNATIVE C: NO NEW SHADOW ON MARITIME PLAZA

This alternative would be a new tower which would not add shade to Maritime Plaza between the hour of one hour after sunrise and one hour before sunset at any time of year, the times restricted by Proposition K, the Park Shadow Ban initiative. The alternative would be 16 stories and 216 ft. tall (to the top of the penthouse), compared to 19 stories and 255 ft. for the project. Total office floor area would be 271,900 gsf, compared to 307,000 for the proposed project, or 189,900 gsf net new office space, compared to 225,000 gsf for the project. Retail, parking and other design features of the alternative would be similar to those of the project.

Net effects on transportation, air quality, and energy would be about 16% less than those of the project and wind effects would be similar, and no violation of wind speed criteria would be expected to occur. Employment would be about 16% less than the project. This shorter alternative would not shade the southeasterly corner of the portion of Maritime Plaza, that is west of the Alcoa Building on January afternoons at about 3:50 p.m. and on November afternoons at about 3:30 p.m., as would the project. The alternative would comply with Proposition K. The western half of Maritime Plaza would continue to be about 97% shaded by existing and approved buildings at these times.

This alternative was rejected by the project sponsor because the sponsor believes that the project would be architecturally superior, and shadow effects on Maritime Plaza would not affect use of the Plaza.

#### D. ALTERNATIVE D: NO EXCEPTION TO PLANNING CODE: BULK

This alternative would be a new tower which would not require exceptions to bulk requirements under the Downtown Plan. Office space under this alternative would be 307,000 gsf, the same as for the project. It would be 21 stories and about 280-ft.-tall, compared to 19 stories and 255 ft. for the project. The increased height of this alternative would result from more, but smaller, floor sizes that would meet Downtown Plan requirements. This alternative would have the same amount of parking, retail, lobby, and mechanical space as the proposed project. The ground-floor design of this alternative would be the same as for the project.

This alternative would retain the south and east facades of the existing 343 Sansome St. building and would seismically upgrade the building, as would the project. It would have similar potential impacts on cultural resources as the project. This alternative would be more visible than the project. Transportation, air-quality and energy effects would be the same as for the project. Noise effects would be similar to those of the project. Because of its greater height, this alternative would shade up to 3% of Maritime Plaza west of the Alcoa Building in late afternoons for about four weeks in late January and early February and in November, compared to about two weeks for the project. Wind effects would be similar, and no violation of criteria would occur. This alternative would provide employment for about 1,205 employees, the same as the project. Parking demand and the decrease in parking on-site for the alternative would be the same as for the project.

This alternative was rejected by the project sponsor because the sponsor believes that the project would be architecturally superior to this alternative and would provide a better relationship to the existing 343 Sansome St. building, and would minimize shadows on Maritime Plaza. Thus, for urban design and environmental reasons, the sponsor believes bulk exceptions are justified on this site.

#### E. ALTERNATIVE E: NO NEW SHADOW ON MARITIME PLAZA AND NO EXCEPTION TO THE PLANNING CODE: BULK

This alternative would be a new tower which would not add shade to Maritime Plaza between the hours from one hour after sunrise to one hour before sunset at



any time of year, the times restricted by Proposition K, the Park Shadow Ban initiative, and would comply with Planning Code lower tower and upper tower bulk requirements for maximum length and diagonal dimensions, and lower tower average floor size. The alternative would be 16 stories and 216 ft. tall (to the top of the penthouse), compared to 19 stories and 255 ft. for the project. The alternative would have a average lower tower floor size of 17,000 gsf, compared to 19,343 gsf for the project. Total office floor area would be 255,000 gsf, compared to 307,000 for the proposed project, and 178,000 gsf net new office space, compared to 225,000 gsf for the project. Other retail, parking and design features of the alternative would be similar to those of the project.

Net effects on transportation, air quality, and energy would be about 21% less than those of the project. Employment would be proportionately less. Effects on cultural resources and wind effects would be similar, and no violation of wind speed criteria would be expected to occur.

As with Alternative C, this shorter alternative would not shade the southeasterly corner of Maritime Plaza, west of the Alcoa Building on January (at about 3:50 p.m.) and November (at about 3:30 p.m.) afternoon, for approximately three to fifteen minutes, as would the project, and would comply with Proposition K. The western half of Maritime Plaza would continue to be about 97% shaded by existing and approved buildings at these times.

This alternative was rejected by the project sponsor because the sponsor believes that the project would be architecturally superior, and shadow effects on Maritime Plaza would not effect use of the plaza.

#### F. ALTERNATIVE F: NO PARKING

This alternative would have no parking spaces; other uses, building dimensions and floor areas would be as for the project. The building would include one basement level with service areas and four van spaces. The alternative would eliminate on-site parking, compared to the project which would decrease parking from 210 to 100 spaces, and thereby would further reduce traffic from the site at local intersections. Unmet parking demand from the alternative would be 100 equivalent spaces greater than that for the project. This alternative would have less potential for disturbance of cultural resources,

as one basement level would be needed for the new tower, rather than two. All other impacts of this alternative would be as for the project.

The project sponsor has rejected this alternative because he feels the parking proposed with the project would be an a required amenity for the building, and because he believes that the project must have some on-site parking to be marketable.

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## X. APPENDICES

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DEPARTMENT OF CITY PLANNING 450 McALLISTER STREET • SAN FRANCISCO CALIFORNIA 94102

**NOTICE THAT AN  
ENVIRONMENTAL IMPACT REPORT  
IS DETERMINED TO BE REQUIRED**

Date of this Notice:

Lead Agency: City and County of San Francisco, Department of City Planning  
450 McAllister Street - 6th Floor, San Francisco, CA 94102

Agency Contact Person: Carol Roos

Telephone: (415) 558-5261

Project Title: 85.79E  
343 Sansome Street  
Office Building

Project Sponsor: Gerald D. Hines Interests

Project Contact Person: Susan Bayne Churchill

Project Address: 343 Sansome St., the northeast corner of Assessor's Block 239, west side  
of Sansome St. between Sacramento St. and Halleck St.

Assessor's Block(s) and Lot(s): Lots 2, 24, 27 and 28 of Assessor's Block 239

City and County: San Francisco

Project Description: Demolition of two buildings (the one-story 343 Sansome building and the four-story 525 Sacramento St. garage) and removal of north- and west-facing walls of the 343 Sansome St. building (designated a Category I, Significant Building, in the Downtown Plan). Construction of new 26-story, 346-ft. tall building and incorporation of 343 Sansome St. into it. Project would contain about 341,500 sq. ft. (83,000 existing plus 258,500 new) of office space, 9,000 sq. ft. of retail, 5,400 sq. ft. of open space, 150 parking spaces and two freight and 3 to 4 van loading spaces. Requiring building permit. (Building permit application no. 85117935.)

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance), and the following reasons, as documented in the Environmental Evaluation (Initial Study) for the project, which is attached.

Please see attached Initial Study.

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: \_\_\_\_\_.

An appeal requires: 1) a letter specifying the grounds for the appeal, and;  
2) a \$35.00 filing fee.

Barbara W. Sahm, Environmental Review Officer

343 SANSOME STREET  
Initial Study  
85.79E

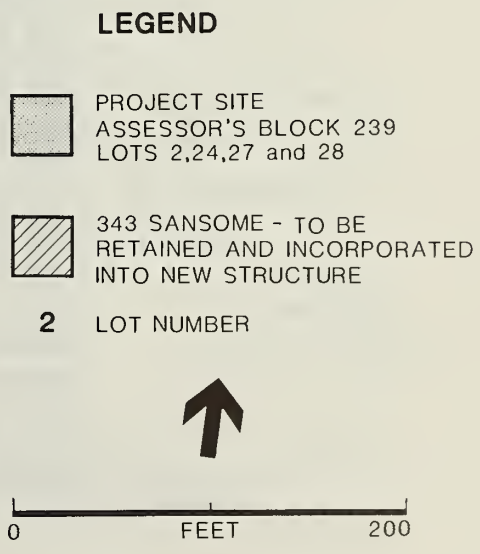
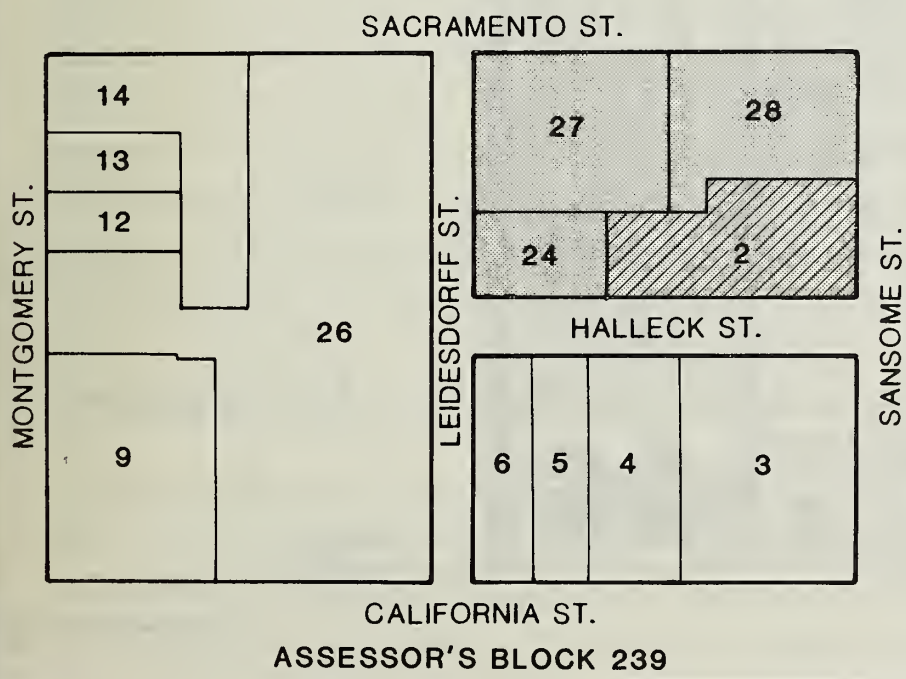
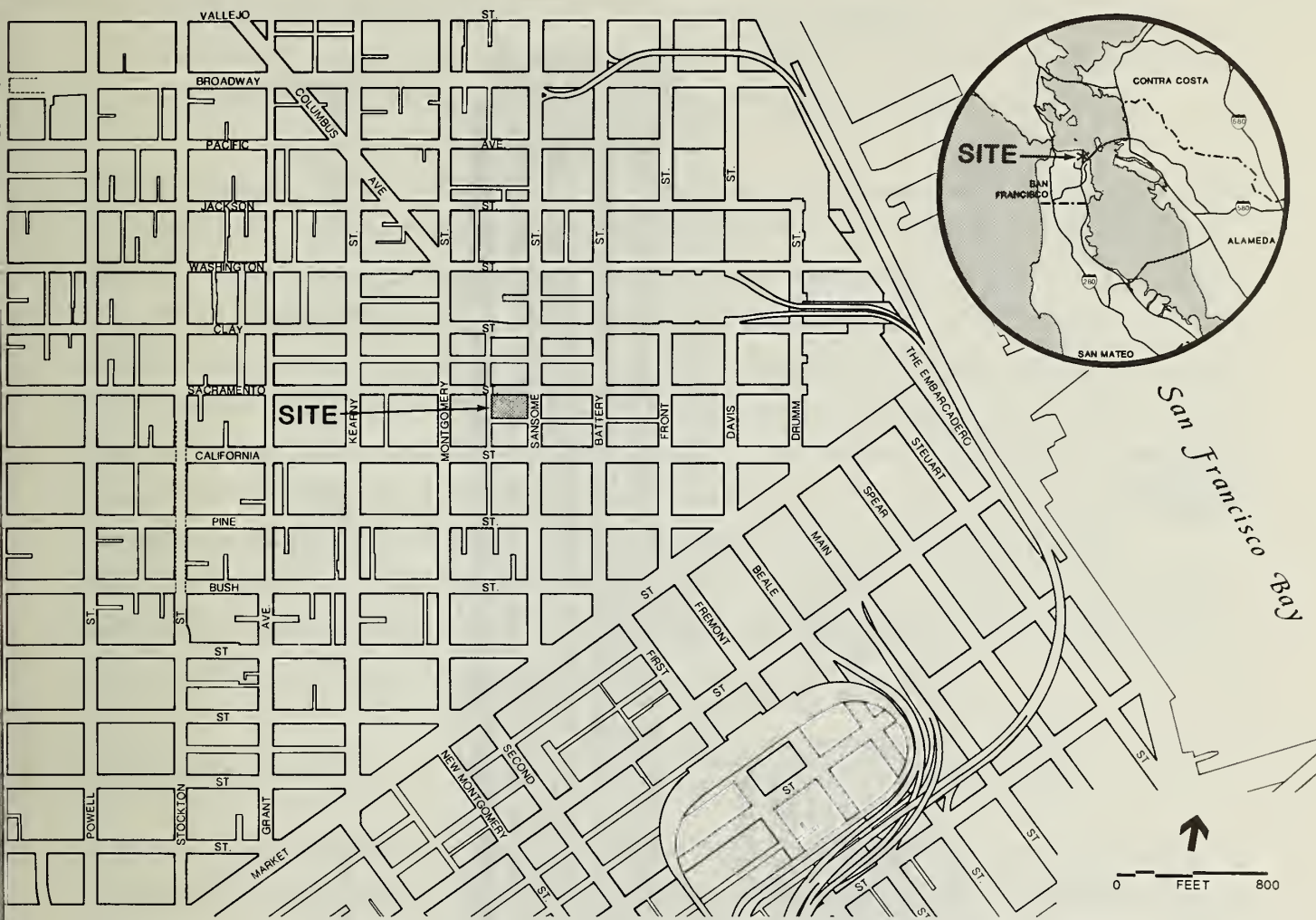
I. PROJECT DESCRIPTION

The proposed project would be the construction of a 26-story, 346-ft. tall, 347,700 gross sq. ft. (gsf) office and retail building, with parking, and incorporation of part of an existing 13-story building with 86,000 gsf office and retail for a total of 433,700 gsf. The site is bounded by Sansome, Sacramento, Leidesdorff and Halleck Sts. (see Figure 1, p. 2). As noted, the new building would incorporate the existing 343 Sansome St. building, designated Category I for architectural merit in the Downtown Plan; it would require the demolition of two buildings (345 Sansome and 525 Sacramento). The proposed building would be 330 ft. tall with a mechanical level extending about 16 ft. higher, for a total height of about 346 ft. (see Figure 2, p. 3). The ground floor would contain about 9,000 sq. ft. of retail uses, about 5,400 sq. ft. of open space and about 8,200 sq. ft. of circulation and loading area (two freight loading spaces with access from Halleck St.). Service vehicle loading and parking access would be by ramp from Halleck St. to three subsurface parking levels with about 150 parking stalls and up to four service vehicle loading spaces. Floors two through 25 of the building would contain about 341,500 sq. ft. of office space. The Floor Area Ratio (FAR) on the project site would be 14.3:1. The project proposes the use of about 126,390 sq. ft. of Transferred Development Rights (TDRs) from as-yet unidentified lots.

The project would remove portions of north- and west-facing exterior walls of the 343 Sansome St. building. This building would be connected to the new tower and seismically reinforced as required by the Building Code; TDR would not be applied to the lot containing the 343 Sansome St. building. The new building would abut the north and west sides of the 343 Sansome building. The new and old buildings would be structurally linked and floors would be continuous between the two buildings.

The project sponsor is Gerald D. Hines Interests. The project architect is John Burgee Associates, with Philip Johnson. Project plans are on file and available for public review at the Office of Environmental Review, Department of City Planning, 450 McAllister St., San Francisco.



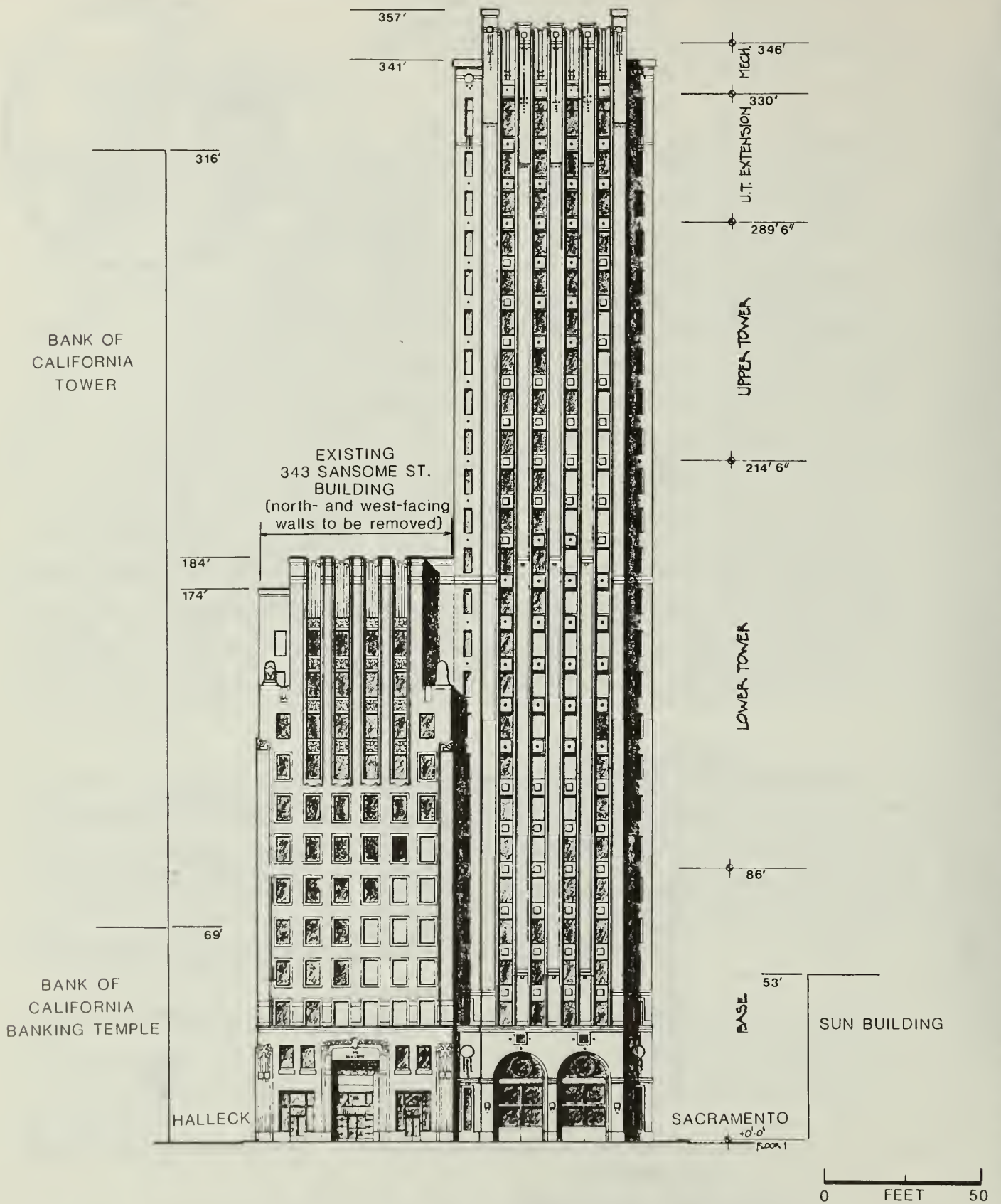


43 SANSOME

FIGURE 1  
PROJECT LOCATION

SOURCE: ESA





## 343 SANSOME

SOURCE: JOHN BURGEE ARCHITECTS  
WITH PHILIP JOHNSON

FIGURE 2  
SANSOME ST. ELEVATION

The 23,901-sq.-ft. site includes Lots 2, 24, 27 and 28 of Assessor's Block 239, in the financial district (see Figure 1, p. 2). The site is in the C-3-0 (Downtown Office) Use District, and the 300-S Height and Bulk District. The basic allowable FAR is 9:1.

The site is occupied by three structures. The 13-story 343 Sansome St. building (Lot 2) is occupied almost entirely by offices, except for a small barber shop on the ground floor; part of this building would be incorporated into the project. The one-story 345 Sansome St. office building at the corner of Sansome and Sacramento Sts. (Lot 28) is vacant. A four-story parking garage at 525 Sacramento St. occupies the western portion of the the site (Lots 24 and 27). The 345 Sansome St. building and the garage would be demolished. The two office buildings (343 and 345 Sansome St.) contain about 83,000 sq. ft. of office space: the 343 Sansome St. Building contains 75,800 sq. ft. of office space; and the 345 Sansome St. building contains 7,200 sq. ft. of office space. The parking garage (525 Sacramento St.) contains about 43,000 sq. ft. (210 spaces). The project would thus add 258,500 net new sq. ft. of office and 8,500 net new sq. ft. of retail to the site and would decrease parking by about 60 spaces.

## II. INTRODUCTION

A tiered EIR will be prepared for the proposed 343 Sansome St. project pursuant to Sections 21093 and 21094 of the Public Resources Code, California Environmental Quality Act (CEQA). The EIR will be tiered from the Downtown Plan EIR (EE81.3, Final EIR, certified October 18, 1984) and will analyze project-specific impacts. The EIR will discuss potentially significant effects that were not examined in the Downtown Plan EIR and will include applicable mitigation measures for site specific effects. Cumulative impacts of the development forecast in the C-3 districts to the year 2000 are addressed in the Downtown Plan EIR. That cumulative analysis will not be repeated in the EIR for this project. The Downtown Plan EIR may be examined at the Department of City Planning, 450 McAllister St.; the San Francisco Main Library; and various branch libraries.

### Tiered Environmental Impact Report

Where a prior environmental impact report has been prepared and certified for a program, plan, policy or ordinance, the lead agency for a later project that meets the specified requirements is required (as of January 1, 1986) to examine significant effects of the later project upon the environment, with exceptions, by using a tiered report.



Agencies are required to tier EIRs which they prepare for separate but related projects including general plans, zoning changes and development projects, in order to avoid repetitive discussions of the same issues in successive EIRs and ensure that EIRs prepared for later projects which are consistent with a previously approved policy, plan, program, or ordinance concentrate on environmental effects which may be mitigated or avoided in connection with the decision on each later project. Tiering is appropriate when it helps a public agency to focus on the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous environmental impact reports. Environmental impact reports shall be tiered wherever feasible, as determined by the lead agency.

The law directs that where a prior EIR has been prepared and certified as noted above, the lead agency shall examine significant effects of the later project on the environment by using a tiered EIR, except that the report on the later project need not examine those effects which were either mitigated or avoided as a result of the prior EIR, or examined at a sufficient level of detail in the prior EIR to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

The Initial Study is to assist the lead agency in making the determinations required for tiering.

### III. SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

#### A. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

The proposed project is examined in this Initial Study to identify potential effects on the environment. The cumulative impacts of growth in the C-3 districts to the year 2000 were adequately analyzed in the Downtown Plan EIR. The analysis of cumulative impacts remains current and valid and the determination during certification of that EIR regarding significant effects remains unchanged. Some project-specific potential effects have been determined to be potentially significant, and will be analyzed in an environmental impact report (EIR). They include: the relationship of the project to the Master Plan including the Downtown Plan, and the Planning Code including Article 11 regarding preservation of historic structures; urban design; visual quality; construction noise; project-related transportation; traffic-generated air quality effects; shadow; wind; project-related employment; and cultural resources (archaeology).



## B. EFFECTS FOUND TO BE INSIGNIFICANT

The following potential impacts were determined either to be insignificant or to be mitigated through measures included in the project. These items require no further environmental analysis in the EIR:

Land Use: The proposed office and retail uses are principal permitted uses in the C-3-O District; the project would be compatible with existing and proposed development in the vicinity; it would continue and intensify uses now existing on the site.

Glare: Mirrored glass would not be used (see the mitigation measure on p. 26).

Housing: The project would comply with the Office Affordable Housing Production Program Ordinance. Cumulative and indirect effects including those of the project are addressed in the EIR prepared for the Downtown Plan.

Operational Noise: After completion, building operation and project-related traffic would not perceptibly increase noise levels in the site vicinity. Operational noise would be regulated by the San Francisco Noise Ordinance and the project would conform to the Noise Guidelines of the Environmental Protection Element of the Master Plan.

Construction Air Quality: Project construction would have short-term impacts on air quality in the site vicinity. Mitigation measures to reduce particulate and hydrocarbon emissions generated during construction activities are included as part of the project (see p. 26).

Utilities/Public Services: The project would increase the demand for utilities and public services but would not require additional personnel or equipment.

Biology: The project site is completely developed; therefore, the project would not affect vegetation or wildlife.

Geology/Topography: A preliminary geotechnical investigation has been made for the project, and a final detailed geotechnical report would be prepared prior to commencement of construction, by a California-licensed geologic engineer. The project sponsor and contractor would follow the recommendations of the final report regarding

any excavation and construction for the project. Measures to mitigate potential impacts associated with excavation and dewatering are included as part of the project (see pp. 26-27).

Water: The project would use an average of about 21,700 gallons of water per day. The site is completely covered by impervious surfaces; therefore, the project would not affect drainage patterns or water quality. See also the measures referenced above to mitigate potential impacts of dewatering and excavation.

Energy/Natural Resources: The project would be designed to comply with performance standards of Title 24 of the California Administrative Code. Its annual energy budget would be about 160,000 Btu per sq. ft. Peak electrical energy and natural gas use would coincide with PG&E's systemwide peaks. Cumulative and indirect effects including those of the project are addressed in the EIR prepared for the Downtown Plan. Energy mitigation measures would be included as part of the project (see pp. 27-28).

Hazards: The project would not create a health hazard or be affected by hazardous uses. Mitigation measures to assure project compliance with the City's Emergency Response Plan are included in the project (see p. 29).

| A. <u>COMPATIBILITY WITH EXISTING ZONING AND PLANS</u>  | <u>Not<br/>Applicable</u> | <u>Discussed</u> |
|---|---------------------------|------------------|
| *1) Discuss any variances, special authorization, or changes proposed to the City Planning Code or Zoning Map, if applicable. | —                         | <u>X</u>         |
| *2) Discuss any conflicts with the Comprehensive Plan of the City and County of San Francisco, if applicable.                 | —                         | <u>X</u>         |
| *3) Discuss any conflicts with any other adopted environmental plans and goals of the City or Region, if applicable.          | <u>X</u>                  | —                |

The Downtown Plan, and the Planning Code sections implementing it, contain controls of the scale, intensity, and location of growth in downtown San Francisco; architectural preservation; open space; sunlight access; wind; and transportation.

\* Derived from State EIR Guidelines, Appendix G, normally significant effect.

The project would be consistent with the Downtown Plan (with allowable exceptions – see below) and the zoning for the site, and would thus meet this requirement for a tiered EIR. The project would require an exception to the bulk limits to exceed the maximum diagonal dimensions at both the upper and lower tower portions of the building and to exceed the maximum length dimension at the upper tower.

The project would require a major alteration permit to alter the 343 Sansome Building pursuant to Section 1111.6(b)1–7 of the City Planning Code. The project would require approval under Sections 309 and 321 of the City Planning Code.

The project's relationship to the Downtown Plan and Planning Code will be discussed in the EIR.

The project would not conflict with adopted environmental plans or goals.

**B. ENVIRONMENTAL EFFECTS.**

Yes   No   Discussed

1) Land Use. Could the project:

- |       |  |   |          |          |
|-------|--|---|----------|----------|
| * (a) | Disrupt the physical arrangement of an established community?            | — | <u>X</u> | <u>X</u> |
| (b)   | Have any substantial impact upon the existing character of the vicinity? | — | <u>X</u> | <u>X</u> |

The project site is located in the City's financial district, an area characterized by office buildings of various ages and sizes. Upper floors of structures are generally office with ground floors containing banking, office-support retail, and parking. The project would replace existing office and retail uses at the site with similar uses, at a greater intensity, except that the number of parking spaces at the site would reduced.

Section 210.3 of the City Planning Code states that the C-3-0 (Downtown Office) District, "playing a leading role in finance corporate headquarters and service industries, and serving as an employment center for the region, consists primarily of high quality office development." The project would be compatible with the C-3-0 land use designation.

Land use in the site vicinity consists predominantly of office use with some ground-level retail use, parking lots and structures, and some residential buildings/hotels. The Embarcadero Center West development, an approximately 1,110,500-sq.-ft. office, retail



and hotel development on three parcels to the east, fronting Battery St. and one block northeast of the site has been approved by the City Planning Commission. Buildings under construction in the site vicinity include the 505 Montgomery and 456 Montgomery buildings, at the southeast and northwest corners of the intersection of Montgomery and Sacramento Sts.; and the 47-story 345 California building, about one block southeast of the site. Part of Embarcadero Center West is under construction at the northwest corner of Halleck and Battery Sts. Projects recently completed in the site vicinity include the Bank of Canton headquarters building one block northwest of the site and 580 California St., an office and retail development one block west/southwest of the site.

The nearest open space in the site vicinity is A.P. Gianninni Plaza, part of the Bank of America headquarters building, located about 600 ft. southwest of the project site. The landmark Federal Reserve Bank building, diagonally across Sansome St. from the project site, will be retained with the Embarcadero Center West development; its steps are used by workers for sitting during the noon hour. Residential uses in the project vicinity, are primarily to the northwest on Commercial and Clay Sts. and consist of three- and four-story apartment buildings and residential hotels. A PG&E building, Station J, is north of the project site at 565 Commercial St. at Leidesdorff.

The project would include new development of an office tower on three lots and incorporation of the existing building at 343 Sansome except for its north and west walls and would not change existing blocks or street grids; it would not disrupt or divide the physical arrangement of the area. The project would be similar to land uses in the site vicinity. The intensification of office uses at the site which would result from the project would continue the trend of high-rise office development in the site vicinity. In view of the above, the project would not have a substantial impact on the existing office/retail character of the vicinity. This topic does not require further analysis in the EIR.

| 2) <u>Visual Quality</u> . Could the project: |  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|---|--|------------|-----------|------------------|
| *   | (a) Have a substantial, demonstrable negative aesthetic effect?                                | <u>X</u>   | —         | <u>X</u>         |
|   | (b) Substantially degrade or obstruct any scenic view of vista now observed from public areas? | —          | <u>X</u>  | <u>X</u>         |
|   | (c) Generate obstrusive light or glare substantially impacting other properties?               | —          | <u>X</u>  | <u>X</u>         |

The project's appearance and possible effects on views will be discussed in the EIR. Mirrored glass would not be used in the project; the building would not result in glare affecting other properties (see mitigation, p. 26). The EIR will, therefore, not discuss glare.

| 3) | <u>Population.</u> | Could the project:   | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|----|--------------------|--|------------|-----------|------------------|
| *  | (a)                | Induce substantial growth or concentration of population?  | —          | <u>X</u>  | <u>X</u>         |
| *  | (b)                | Displace a large number of people (involving either housing or employment)?                                      | —          | <u>X</u>  | <u>X</u>         |
|    | (c)                | Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply? | —          | <u>X</u>  | <u>X</u>         |

Project specific employment information regarding number and type of employees on site, with existing conditions and with the project, will be included in the EIR.

The project would generate a demand for 100 dwelling units according to the Office Affordable Housing Projection Program formula. The project must comply with the OAHPP, Ordinance No. 358-85. Cumulative and indirect effects including those of this project are addressed, and may be found in, the Downtown Plan EIR. That analysis will not be repeated in the 343 Sansome St. EIR.

The Downtown Plan EIR concluded that population effects resulting from development in the C-3 districts under the Downtown Plan would not be significant. That conclusion would remain true with the project. The Downtown Plan EIR (EE81.3, Final EIR certified October 18, 1984) may be examined at the Department of City Planning, 450 McAllister St., 6th Floor; the San Francisco Main Library; and various branch libraries.

| 4) | <u>Transportation/Circulation.</u> | Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|----|------------------------------------|---|------------|-----------|------------------|
| *  | (a)                                | Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?     | —          | <u>X</u>  | <u>X</u>         |
|    | (b)                                | Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards? | —          | <u>X</u>  | <u>X</u>         |
|    | (c)                                | Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?             | —          | <u>X</u>  | <u>X</u>         |
|    | (d)                                | Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?                       | <u>X</u>   | —         | <u>X</u>         |

Increased employment at the site would increase demand on existing transportation systems. The number of pedestrians in the area would also increase. The project would not alter existing circulation patterns except during construction; its effects on circulation during construction will be discussed in the EIR. The project would decrease the number of parking spaces on the site from about 200 to about 150 and would move the parking entrance from Sacramento St. to Halleck St., and therefore, localized traffic impacts from the project are not expected to be worse with the project than with existing conditions. However, localized transportation impacts of the project will be analyzed in the EIR.

The cumulative transportation effects of development in the C-3 districts including the project are analyzed in the Downtown Plan EIR. The Planning Commission in certifying the Downtown Plan EIR determined that cumulative transportation impacts would have a significant impact. The cumulative analysis in the Downtown Plan regarding transportation will be incorporated by reference into the 343 Sansome St. EIR, and the project effects in relation to cumulative impacts will be discussed. The analysis in the Downtown Plan EIR remains current regarding future and project conditions.

| 5) <u>Noise.</u> Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| * (a) Increase substantially the ambient noise levels for adjoining areas? | —          | <u>X</u>  | <u>X</u>         |
| (b) Violate Title 25 Noise Insulation Standards, if applicable?            | —          | <u>X</u>  | <u>X</u>         |
| (c) Be substantially impacted by existing noise levels?                    | —          | <u>X</u>  | <u>X</u>         |

Demolition, excavation, and building construction would temporarily increase noise in the site vicinity. Project construction noise and its possible effects on sensitive receptors will be addressed in the EIR.

The noise environment of the site, like all of downtown San Francisco, is dominated by vehicular traffic noise. The Downtown Plan EIR indicates a day-night average noise level (Ldn) of 72 dBA on Sansome St. and 73 dBA on Sacramento St. adjacent to the site in 1984./1,2/ The Environmental Protection Element of the Master Plan contains guidelines for determining the compatibility of various land uses with different noise environments. For office uses, the guidelines recommend no special noise control measures in an exterior noise environment up to an Ldn of 70 dBA. For noise levels of 75 dBA and above, the guidelines recommend an analysis of noise reduction requirements and inclusion of noise insulation features in the building design. The project sponsor has indicated that noise



insulation measures would be included as part of the design (see mitigation, p. 26). The proposed structure would not include housing, so Title 25 Noise Standards would not be applicable.

Project operation would not result in perceptibly greater noise levels than those existing in the area. The amount of traffic generated by the project during any hour of the day, and cumulative traffic increases at the time of project completion, would cause traffic noise levels to increase by one dBA or less. To produce a noticeable increase in environmental noise, a doubling of existing traffic volume would be required; traffic increases of this magnitude would not occur with anticipated cumulative development including the project./3/

The project would be required to comply with the San Francisco Noise Ordinance, San Francisco Police Code Section 2909, "Fixed Source Noise Levels," which regulates mechanical equipment noise. The project site and surrounding area are within a C-3-0 district. In this district, the ordinance limits equipment noise levels at the property line to 70 dBA between 7 a.m. and 10 p.m. and 60 dBA between the hours of 10 p.m. and 7 a.m. During lulls in traffic, mechanical equipment generating 70 dBA could dominate the noise environment at the site. The project engineer and architect would include design features in the building to limit mechanical equipment noise levels to 60 dBA. As equipment noise would be limited to 60 dBA to meet the nighttime limit, it would not be perceptible above the ambient noise levels in the project area; operational noise requires no further analysis and will not be included in the EIR.

#### NOTES - Noise

/1/ San Francisco Department of City Planning, Downtown Plan Environmental Impact Report (EIR), EE81.3, certified October 18, 1984, Vol. 1, Table IV.J.2.

/2/ dBA is a measure of sound in units of decibels (dB). The "A" denotes the A-weighted scale, which simulates the response of the human ear to various frequencies of sound.

Ldn, the day-night average noise level, is a noise measurement based on human reaction to cumulative noise exposure over a 24-hour period, taking into account the greater annoyance of nighttime noises; noise between 10 p.m. and 7 a.m. is weighted 10 dBA higher than daytime noise.

/3/ See Downtown Plan EIR, Vol. 1, Continuous Section IV.E. generally and Section IV.J., pp. IV.J.8-18. Increases of 1 dBA or less in environmental noise are not noticeable by most people outside a laboratory situation (National Academy of Sciences, Highway Research Board, Research Report No. 117 (1971)). (See also FHWA Highway Traffic Noise

| 6) | <u>Air Quality/Climate.</u> | Could the project:   | <u>Yes</u> | <u>No</u>  | <u>Discussed</u> |
|----|-----------------------------|--|------------|------------|------------------|
| *  | (a)                         | Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?  | —          | <u>X**</u> | <u>X</u>         |
| *  | (b)                         | Expose sensitive receptors to substantial pollutant concentrations?  | —          | <u>X</u>   | <u>X</u>         |
|    | (c)                         | Permeate its vicinity with objectionable odors?  | —          | <u>X</u>   | —                |
|    | (d)                         | Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region? | <u>X</u>   | —          | <u>X</u>         |

Demolition, grading and other construction activities would temporarily affect local air quality for about two years, causing a temporary increase in particulate dust and other pollutants. Dust emission during demolition and excavation would increase particulate concentrations near the site. Dustfall can be expected at times on surfaces within 200 to 800 ft. Under high winds exceeding 12 miles per hour, localized effects including human discomfort might occur downwind from blowing dust. Construction dust is composed primarily of large particles that settle out of the atmosphere more rapidly with increasing distance from the source. More of a nuisance than a hazard for most people, this dust could affect persons with respiratory diseases, as well as sensitive electronics or communications equipment. The project sponsor would require the contractor to wet down the construction site twice a day during construction to reduce particulates by at least 50% (see p. 26).

Diesel-powered equipment would emit, in decreasing order by weight, nitrogen oxides, carbon monoxide, sulfur oxides, hydrocarbons, and particulates. This would increase local concentrations temporarily but would not be expected to increase the frequency of exceedances of air quality standards. The project sponsor would require the project contractor to maintain and operate construction equipment in such a way as to minimize exhaust emissions (see p. 26). Construction air quality effects require no further analysis.

The cumulative effects on air quality of traffic emissions from traffic generated by development in the C-3 districts including the project are analyzed in the Downtown Plan

\*\* The site-specific traffic impacts created by this project are not expected to be significant, as noted in the earlier discussion. However, the localized air quality effects of the project will be discussed in the EIR.



EIR. The Planning Commission in certifying the Downtown Plan EIR determined that cumulative air quality impacts would have a significant impact. The cumulative analysis in the Downtown Plan EIR regarding air quality will be incorporated by reference and the project effects in relation to cumulative effects will be discussed. The analysis and conclusions of the Downtown Plan EIR remain current regarding future and project conditions.

Potential shadowing impacts of the project on sidewalks, parks and other open spaces will be discussed in the EIR. The analysis will include sun path and shadow diagrams.

Section 148 of the Planning Code establishes comfort criteria of 11 mph equivalent wind speed for pedestrian areas and 7 mph for seating areas, not to be exceeded more than 10% of the time, year-round between 7:00 a.m. and 6:00 p.m. Project wind effects including the results of wind tunnel testing, and the effects of the project in relation to the Downtown Plan criteria will be discussed in the project EIR.

| 7) <u>Utilities/Public Services.</u> Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| * (a) Breach published national, state or local standards relating to solid waste or litter control? | —          | <u>X</u>  | —                |
| * (b) Extend a sewer trunk line with capacity to serve new development?                              | —          | <u>X</u>  | <u>X</u>         |
| (c) Substantially increase demand for schools, recreation or other public facilities?                | —          | <u>X</u>  | <u>X</u>         |
| (d) Require major expansion of power, water, or communications facilities?                           | —          | <u>X</u>  | <u>X</u>         |

The Downtown Plan EIR concluded that demand for utilities and public services resulting from development in the C-3 districts under the Downtown Plan would not be significant. The project would fall within this development forecast. The Downtown Plan EIR analysis remains current and valid for future and project conditions. The Downtown Plan EIR (EE81.3, Final EIR certified October 18, 1984) may be examined at the Department of City Planning, 450 McAllister St., 6th Floor; the San Francisco Main Library and various branch libraries. This topic requires no further analysis in the EIR.

| 8) <u>Biology.</u> Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| * (a) Substantially affect a rare or endangered species of animal or plant or the habitat of the species?  | —          | <u>X</u>  | —                |
| * (b) Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species? | —          | <u>X</u>  | <u>X</u>         |
| (c) Require removal of substantial numbers of mature, scenic trees?  | —          | <u>X</u>  | —                |



The site is covered by impervious surfaces. The project would not affect plant or animal habitats. This topic will not be discussed in the EIR.

| 9) <u>Geology/Topography.</u> Could the project:   | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| (a) Expose people or structures to major geologic hazards (slides, subsidence, erosion, and liquefaction)? | ___        | <u>X</u>  | <u>X</u>         |
| (b) Change substantially the topography or any unique geologic or physical features of the site?           | ___        | <u>X</u>  | ___              |

The project site is at about four ft., San Francisco Datum (SFD)./1/ Soils at the site are composed of sandy Bay fill, which is underlain by weak Bay deposits./2/ Groundwater levels were encountered at about ten feet below the ground surface./2/

Excavation for the project foundations and parking garage would be conducted to a depth which has not been determined for the three proposed subsurface parking levels. Excavation depth would be, at maximum, to about 30 feet below grade or -26 feet, SFD. This would be about 18 ft. below existing basements. A driven pile foundation would probably be required./2/ Dewatering would be required during excavation, especially in the area of pile caps. Dewatering could cause some settlement of nearby buildings. The project would include measures to mitigate this potential impact (see p. 29). Additionally, lowering of the local water table by project dewatering could result in rotting of wooden piles in the site vicinity. Older buildings which may have wooden pile or plank foundations and could be affected by this include the 343 Sansome Building, Bank of California building south of Halleck St., and several buildings north of Sacramento St. A measure to mitigate such an impact would be included as part of the project (see p. 29).

Pit walls would be shored up to prevent lateral movement during excavation. Adjacent structures might need to be underpinned, should excavation go below the base of their foundations, to avoid such damage as cracking of walls or foundations or sagging of floors. The building contractor must comply with the San Francisco Building Code and the Excavation Standards of the California Occupational Safety and Health Agency. Pre-construction surveys of adjacent streets and buildings would be conducted if so recommended in the final soils report and would determine what measures, if any, would be needed to protect these structures.

Bay mud is a low quality foundation supporting soil. To avoid building settlement and similar problems encountered when building on Bay mud, the project foundations would include use of precast concrete piles driven to dense sands below the Bay mud to support the structure. Vibration and noise effects of the pile driving on adjacent uses will be addressed in the EIR.

The closest active faults to San Francisco are the San Andreas Fault, about 9 miles southwest of Downtown, and the Hayward and Calaveras Faults, about 15 and 30 miles east of Downtown, respectively. The project area would experience Very Strong (Intensity Level C, masonry badly cracked with occasional collapse, frame buildings lurched when on weak underpinning with occasional collapse) groundshaking during a major earthquake./3/ The site is within an area of liquefaction or subsidence./4/ It is not within an area of potential tsunami or seiche flooding./5/

The project sponsor would follow the recommendations of structural and foundation reports to be prepared for any excavation and construction on the site. The project, including the incorporated 343 Sansome building, must meet current seismic engineering standards of the San Francisco Building Code which include earthquake-resistant design and materials. The Code is designed to allow for some structural damage to buildings but not collapse during a major earthquake (see also Mitigation Measures, p. 29, for the project's emergency response plan). The existing 343 Sansome St. building would be seismically upgraded by the project. Exterior masonry in-fill panels on the north- and west-facing exterior wall of this building would be removed, improving the building's seismic responsiveness by reducing its weight and stiffness. Additionally, the existing steel structure of the building would be strengthened and laterally braced, as required by the Building Code. If found to be necessary, the exterior masonry cladding of the building would be provided with additional anchoring./6/ The project would replace two buildings, 345 Sansome St. building and 525 Sacramento St. parking garage, built prior to current seismic code standards, and therefore generally more susceptible to earthquake damage.

The project would not have a substantial effect on geology or topography, and this topic will not be discussed in the project EIR.

#### NOTES - Geology/Topography

/1/ San Francisco City Datum established the City's "0" point for surveying purposes at approximately 8.6 feet above mean sea level.



/2/ Dames & Moore, Preliminary Geotechnical Study, Proposed Office Building 343 Sansome Street, San Francisco, May 21, 1985, available for review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., 6th Floor. A final report will be prepared for the project.

/3/ URS/John A. Blume and Associates, San Francisco Seismic Safety Investigation, 1974. Groundshaking intensities that would result from a major earthquake were projected and classified on a five-point scale ranging from E (Weak) through A (Very Violent).

/4/ Ibid. The project site is included within an area of liquefaction potential and in a subsidence hazard area. Liquefaction is the transformation of granular material, such as loose, wet sand, into a fluid-like state similar to quicksand. Subsidence is a lowering of the ground surface from settlement of fill or alluvium. This can occur from groundshaking, withdrawal of groundwater, or other causes.

/5/ A.W. Garcia and J.R. Houston, Type 16 Floor Insurance Study: Tsunami Predictions for Monterey and San Francisco Bays and Puget Sound, Federal Insurance Administration, Department of Housing and Urban Development, November 1975. Maximum flood elevations for earthquake-induced tsunamis have been estimated to be about elevation -3.5 ft. for a 100-year event and 0.5 ft. for a 500-year event (elevations from San Francisco Datum, 8.64 ft. above mean sea level), both of which would be below site grade.

/6/ Charles Nichols, Dames & Moore, telephone conversation, October 18, 1985.

| 10) <u>Water</u> . Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| * (a) Substantially degrade water quality, or contaminate a public water supply? | —          | <u>X</u>  | —                |
| * (b) Substantially degrade or deplete ground water recharge?                    | —          | <u>X</u>  | <u>X</u>         |
| * (c) Cause substantial flooding, erosion or siltation?                          | —          | <u>X</u>  | —                |

As discussed above, the project would include excavation to depths that could be beneath the water table, and dewatering could be required. Dewatering could produce localized subsidence, which could damage streets or older buildings in the immediate site vicinity. The sponsor has agreed to measures to mitigate the effects of dewatering (see p. 29). Site runoff would drain into the City's combined sanitary and storm drainage system. The project would not affect drainage patterns or water quality because the site is now entirely covered with impermeable surfaces. No further analysis of this topic is required in the EIR.

| 11) <u>Energy/Natural Resources</u> . Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|---|------------|-----------|------------------|
| * (a) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner? | —          | <u>X</u>  | <u>X</u>         |
| (b) Have a substantial effect on the potential use, extraction, or depletion of a natural resource?                               | —          | <u>X</u>  | <u>X</u>         |



Annual energy consumption by existing office and retail uses on the site is about 871,000 kWh of electricity and about 9,910 therms of steam, equal to about 9.91 billion Btu at the source. A minimal but unknown amount of energy is consumed by parking uses on the site. Natural gas is not used at the existing site./1,2/

Removal of existing structures would require an unknown amount of energy. Fabrication and transportation of building materials, worker transportation, site development, and building construction would require about 710 billion Btu of gasoline, diesel fuel, natural gas, and electricity./3/ Distributed over the estimated 50-year life of the project, this would be about 14.2 billion Btu per year, or about 25% of building energy requirements.

New buildings in San Francisco are required to conform to energy conservation standards specified by Title 24 of the California Administrative Code. Documentation showing compliance with these standards is submitted with the application for the building permit and is enforced by the Bureau of Building Inspection.

Table 1, p. 19, shows the estimated operational energy which would be used by the project. Project demand for electricity during PG&E's peak electrical load periods, July and August afternoons, would be about 1,200 kW, an estimated 0.008% of PG&E's peak load of 16,000 MW./4/ Project demand for natural gas during PG&E's peak natural gas load periods, January mornings, would be 15,100,000 Btu per day, or about 0.4% of PG&E's peak load of about 3.7 billion Btu per day./4/ Annual and peak daily electricity and natural gas consumption are shown in Figures 3 and 4, pp. 20-21. Measures to reduce energy consumption are included as part of the project (see pp. 27-28).

Project-related transportation would cause additional, off-site energy consumption. Annual project-related trips (about 182,000 auto vehicle trip ends [vte], 189,000 bus person trip ends [pte], 17,800 train pte, 8,300 ferry pte, 16,300 jitney/van/taxi/motorcycle/charter bus pte, 221,000 BART pte, and 276,000 Muni electric pte) would require about 118,200 gallons of gasoline and diesel fuel and about 1.02 million kWh of electricity annually, as indicated in Table 2. These figures were calculated based on data contained in the Downtown Plan EIR. The total annual transportation energy demand, converted with at-source factors to a common thermal energy unit, would be about 26.1 billion Btu, the energy equivalent of 4,660 barrels of oil. This projected use is based upon the mix of highway vehicles in California in 1987. Vehicle fuel use is expected to decrease as the vehicle fleet becomes more efficient and fuel more expensive.

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TABLE 1: ESTIMATED PROJECT ENERGY USE/a/

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Daily Natural Gas Consumption/b/

|   |              |
|---|--------------|
| Estimated natural gas consumption per sq. ft. | 35.0 Btu/c/  |
| Estimated daily natural gas consumption       | 122.8 Therms |

Monthly Electric Consumption/b/

|  |                               |
|--|-------------------------------|
| Estimated electrical consumption per sq. ft. | 1.19 kWh (12,140 Btu)/d/      |
| Estimated total electrical consumption       | 416,000 kWh (4.3 billion Btu) |

Annual Consumption

|  |   |
|--|---|
| Estimated total annual natural gas consumption | 44,830 Therms (4.5 billion Btu)         |
| Estimated total annual electrical consumption  | 5.0 million kWh (51.1 billion Btu)      |
| Estimated total annual energy consumption      | 55.6 billion Btu (9,930 barrels of oil) |

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/a/ Energy use includes space conditioning, service water heating and lighting in accordance with allowable limits under Title 24. Estimated electricity includes an additional 3 kWh/sq. ft./yr., consumed by appliances such as typewriters, computers, coffee makers, etc., than assumed by Title 24 estimates.

/b/ Electricity and gas consumption were calculated for the project by ESA, using a standard split of 90% electrical and 10% natural gas for Title 24 calculations. These calculations are available for review at the Office of Environmental Review, 450 McAllister St., San Francisco, California.

/c/ Btu (British thermal unit): a standard unit for measuring heat. Technically, it is the quantity of heat required to raise the temperature of one pound of water 1 degree Fahrenheit (251.97 calories) at sea level.

/d/ Energy Conversion Factors:

|                     |   |               |
|---------------------|---|---------------|
| one gallon gasoline | = | 125,000 BTU   |
| one kilowatt (kW)   | = | 10,239 BTU    |
| one therm           | = | 100,000 BTU   |
| one barrel oil      | = | 5,600,000 BTU |

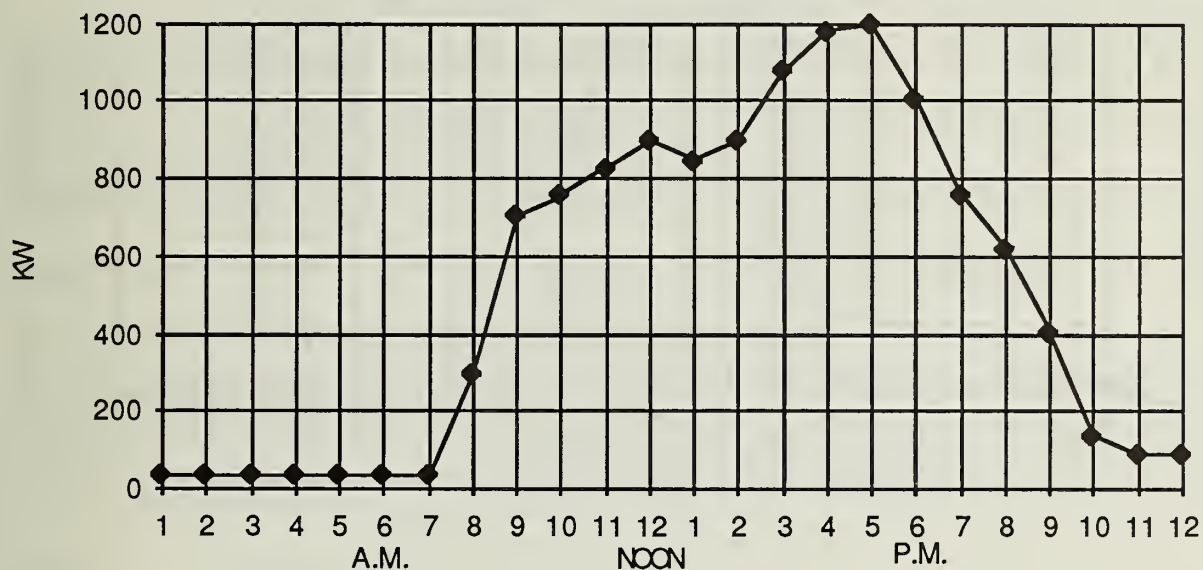
SOURCE: Environmental Science Associates, Inc. and Department of City Planning.

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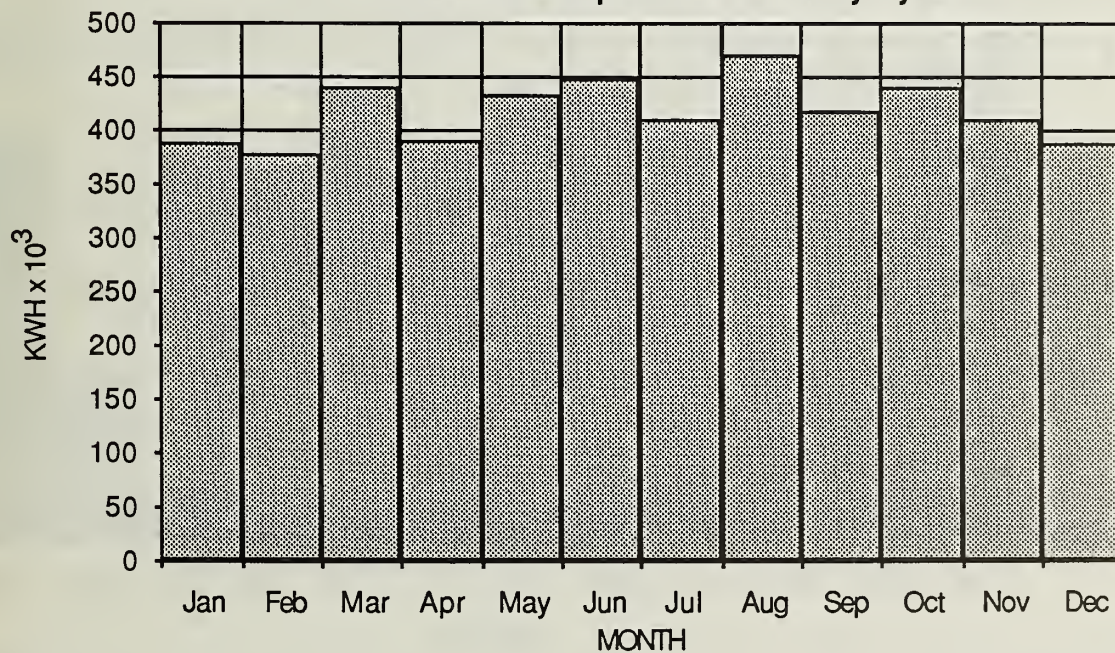
Projections of electrical use for growth that would occur under the Downtown Plan, as analyzed in the Downtown Plan EIR, indicate an increase of about 330-350 million kWh per year between 1984 and 2000, as a result of all new development occurring in the C-3 district. Natural gas consumption is expected to increase by 470 million cubic feet (about five million therms) per year during the same time period, of which 210 cubic feet (about two million therms) per year would be for office uses.



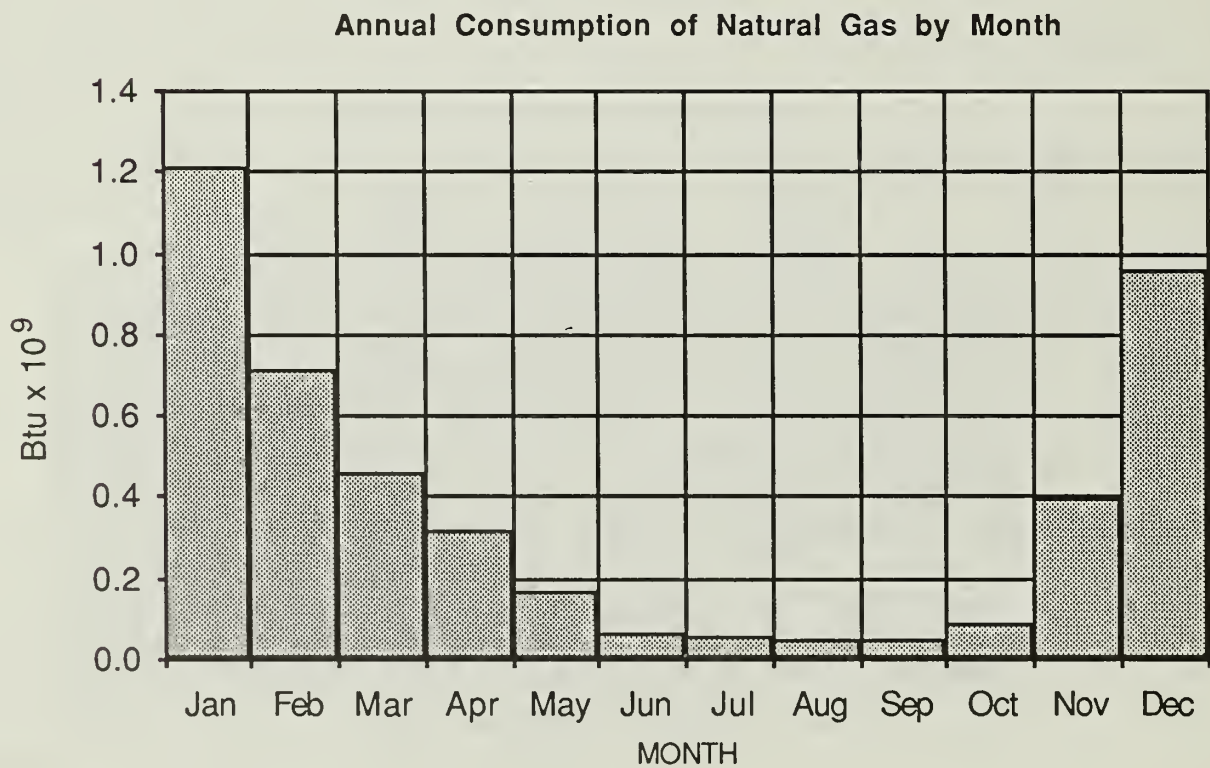
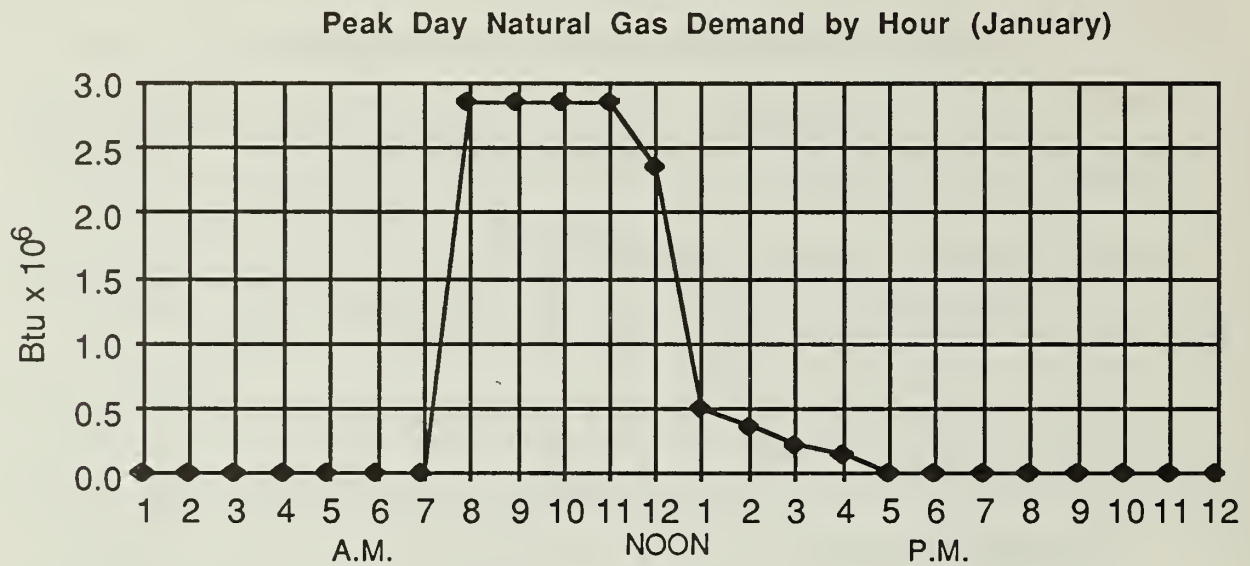
Peak Day Electrical Demand by Hour (August)



Annual Consumption of Electricity by Month







**343 SANSOME**  
 SAN FRANCISCO CALIFORNIA

SOURCE: ESA

**FIGURE 4**  
**PROJECTED NATURAL GAS**  
**DISTRIBUTION CURVES**

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TABLE 2: PROJECT-RELATED ANNUAL TRANSPORTATION ENERGY CONSUMPTION/1/

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|   | Electricity<br>(kWh) | Gasoline<br>(Gallons) | Diesel<br>(Gallons) | Total Btu<br>(Millions) |
|---|----------------------|-----------------------|---------------------|-------------------------|
| Auto/Taxi/Jitney/Ferry/<br>Motorcycle/Charter Bus | --                   | 94,400                | --                  | 11,800                  |
| BART  | 0.894 million        | --                    | --                  | 9,150                   |
| Muni Electric                                     | 0.130 million        | --                    | --                  | 1,330                   |
| Regional Bus Systems                              | --                   | --                    | 19,700              | 3,150                   |
| SPRR  | --                   | --                    | 4,100               | 660                     |
| Project Total                                     | 1.02 million         | 94,400                | 23,800              | 26,090                  |

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/1/ The methods used to calculate these figures are described in detail in the Downtown Plan EIR, EE81.8, certified November 18, 1984, Appendix N and the associated data is contained in Table No. 6 of that document. Calculations are also based on vehicle miles travelled (see calculations for the project on file at the Department of City Planning, Office of Environmental Review, 450 McAllister St.).

SOURCE: Environmental Science Associates, Inc.

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Increased San Francisco energy demands to the year 2000 would be met by PG&E from nuclear sources, oil and gas facilities, hydroelectric and geothermal facilities, and other sources such as cogeneration, wind and imports. PG&E plans to continue receiving most of its natural gas from Canada and Texas under long-term contracts.

The Downtown Plan EIR concluded that energy consumption resulting from development in the C-3 district under the Downtown Plan would not be significant and that conclusion remains valid for the future and project conditions. The Downtown Plan EIR (EE81.3, Final EIR certified October 18, 1984) may be examined at the Department of City Planning, 450 McAllister St., 6th Floor; the San Francisco Main Library; and various branch libraries.

This topic, energy impacts, requires no further analysis and will not be discussed in the EIR.

Average water use is projected to be 21,700 gallons per day. This demand could be accommodated by existing supplies. This topic will not be discussed in the EIR.

## NOTES - Energy

/1/ Existing energy use is based on PG&E customer billings for 1984; at-source thermal energy, given in British thermal units, Btu, is based on information received from PG&E, Technical Service Department, May 10, 1984.

/2/ The British thermal unit (Btu) is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit at sea level; all references to Btu in this Initial Study are at-source values. The term "at-source" means that adjustments have been made in the calculation of the thermal energy equivalent (Btu) for losses in energy that occur during generation, transmission, and distribution of the various energy forms as specified in: ERCDC, 1977, Energy Conservation Design Manual for New Non-Residential Buildings, Energy Conservation and Development Commission, Sacramento, California, and Apostolos, J.A., W.R. Shoemaker, and E.C. Shirley, 1978 Energy and Transportation System, California Department of Transportation, Sacramento, California, Project #20-7, Task 8.

/3/ Hannon, B., et al., 1978, "Energy and Labor in the Construction Sector", Science 202:837-847.

/4/ San Francisco Department of City Planning, Downtown Plan Environmental Impact Report (EIR) (EE81.3), certified October 18, 1984, Vol. 1, pp. IV.G.3-4.

| 12) | <u>Hazards</u> . Could the project:  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|-----|--|------------|-----------|------------------|
| *   | (a) Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected? | —          | <u>X</u>  | —                |
| *   | (b) Interfere with emergency response plans or emergency evacuation plans?   | —          | <u>X</u>  | <u>X</u>         |
|     | (c) Create a potentially substantial fire hazard?  | —          | <u>X</u>  | <u>X</u>         |

The project would increase the daytime population in downtown San Francisco. Employees in the proposed building would contribute to congestion if an emergency evacuation of the downtown area were required. An evacuation and emergency response would be developed as part of the proposed project (see p. 29). The project's emergency plan would be coordinated with the City's emergency planning activities. This mitigation measure is proposed as part of the project; thus this topic will not be discussed in the EIR.

The increased number of persons using the site would not substantially increase the fire hazard at the site as the project would be required to conform to the Life Safety provisions of the San Francisco Building Code and Title 24 of the State Building Code. The Fire Department has determined that no additional fire stations would be needed to serve cumulative development in the site vicinity./1/ Therefore, it is not anticipated that the project would create a substantial fire hazard and this issue will not be discussed in the EIR.



NOTE - Hazards

/1/ Gerald C. Cullen, Assistant Chief, San Francisco Fire Department, letter dated May 2, 1985.

| 13) <u>Cultural</u> . Could the project:   | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| * (a) Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study? | <u>X</u>   | <u>—</u>  | <u>X</u>         |
| (b) Conflict with established recreational, educational, religious or scientific uses of the area?   | <u>—</u>   | <u>X</u>  | <u>—</u>         |
| (c) Conflict with the preservation of buildings subject to the provisions of Article 10 or Article 11 of the City Planning Code?   | <u>X</u>   | <u>—</u>  | <u>X</u>         |

Excavation required for the project would occur in existing disturbed soils and fill and below existing basements for the three parking levels. Archival research was conducted regarding the possibility of encountering artifacts on the site./1/ The site is located Bayward of the original (1853) shoreline of San Francisco. Although no Gold Rush ships are known to exist at the site, evidence exists of such ships in the site vicinity. The old Long Wharf, at which Gold Rush vessels docked, was located about one-half block north of the site, along Commercial St. Archaeological remains from the Gold Rush and City Building Periods could exist on the site. Such a find could be considered of potential archaeological and historic significance. Cultural resources will be discussed in the EIR.

Three structures occupy the site; two of these, 345 Sansome and 525 Sacramento, would be demolished for the project. The buildings to be demolished are not designated as significant or contributory in the Downtown Plan. The Crown Zellerbach building at 343 Sansome St. on the site is a Category I building in the Downtown Plan. Category I of the Downtown Plan includes buildings considered significant based on architectural merit. Portions of this building would be incorporated into the project. The Commercial-Leidesdorff Conservation District in the Downtown Plan, designated by Article 11 of the City Planning Code, faces the site across Sacramento St. The project site is outside this conservation district.

The project would remove the north- and west-facing exterior walls of the 343 Sansome building, designated as a Category I building. The south and east facades, interior structure, and exterior design elements of the building would remain. Removal of the

north- and west-facing exterior walls which have masonry in-fill panels would improve the seismic response of the building by reducing its weight and stiffness./2/ The existing floors of the 343 Sansome building would be retained and would be continuous with the floors of the new building. The 343 Sansome building would be structurally strengthened and would receive lateral bracing from the new project building, to improve its seismic responsiveness./2/ Under Article 11 of the City Planning Code implementing the Downtown Plan, the project sponsor must submit an application for a major alteration permit, which would be reviewed by the Landmarks Preservation Advisory Board (LPAB) and the Director of the Department of City Planning. The Director would make a recommendation on the application and present this recommendation to the City Planning Commission, which is responsible for the final decision on the permit. In general, major alterations to significant buildings are allowable under Article 11 only if the alteration would not damage or destroy distinguishing characteristics of the building and would preserve the architectural integrity of the structure. Architectural, historic and cultural resources will be discussed in the EIR.

NOTE - Cultural

/1/ Mason Tillman Associates, August 30, 1985, 343 Sansome Street Project, Archival Report. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., 6th Floor.

/2/ Robinson, Mills, & Williams, Architects, Rehabilitation Study, 343 Sansome Street, San Francisco, California, June 1, 1984. This report is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St., 6th Floor.

C. OTHER

Yes No Discussed

Require approval of permits from City Departments other than Department of City Planning or Bureau of Building Inspection, or from Regional, State or Federal Agencies?

— X —

D. MITIGATION MEASURES

Yes No N/A Discussed

- 1) If any significant effects have been identified, are there ways to mitigate them?
- 2) Are all mitigation measures identified above included in the project?

X — — X

X — — —

The following are mitigation measures related to topics determined to require no further analysis in the EIR. The EIR will contain a mitigation chapter describing these measures

and also including other measures which would be, or could be, adopted to reduce potential adverse effects of the project identified in the EIR.

#### Visual Quality

- In order to reduce obtrusive light or glare, the project sponsor would not use mirrored glass on the building.

#### Noise – Project Operation

- As recommended by the Environmental Protection Element of the San Francisco Master Plan, an analysis of noise reduction measurements would be prepared by the project sponsor and recommended noise insulation features would be included as part of the proposed building. For example, such design features could include fixed windows and climate control.

#### Construction Air Quality

- The project sponsor would require the general contractor to sprinkle demolition sites with water continually during demolition activity; sprinkle unpaved construction areas with water at least twice per day to reduce dust generation by about 50%; cover stockpiles of soil, sand, and other materials; cover trucks hauling debris, soils, sand or other such material; and sweep streets surrounding demolition and construction sites at least once per day to reduce TSP emissions. The project sponsor would require the general contractor to maintain and operate construction equipment so as to minimize exhaust emissions of TSP and other pollutants by such means as a prohibition on idling of motors when equipment is not in use or trucks are waiting in queues, and implementation of specific maintenance programs (to reduce emissions) for equipment that would be in frequent use for much of a construction period.

#### Geology/Topography

- A detailed foundation and structural design study would be conducted for the building by a California-licensed structural engineer and a geotechnical consultant. The project sponsor would follow the recommendations of these studies during the final design, excavation and construction of the project.



- If dewatering were necessary, any groundwater pumped from the site would be retained in a holding tank to allow suspended particles to settle, if this is found necessary by the Industrial Waste Division of the Department of Public Works, to reduce the amount of sediment entering the storm drain/sewer lines.
- Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. Based upon this discussion, the soils report would contain a determination as to whether or not a lateral and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring. Groundwater observation wells would be installed to monitor the level of the water table and other instruments would be used to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable subsidence were to occur during construction, groundwater recharge would be used to halt this settlement. The project sponsor would delay construction if necessary. Cost for the survey and any necessary repairs to service under the street would be borne by the project sponsor.
- If dewatering is undertaken for the project, the groundwater level in the site vicinity should be monitored. If lowering of the groundwater table were to threaten wooden pile foundations, groundwater recharge would be used to stabilize the groundwater level.

#### Water Quality

- See the second measure under Geology/Topography, above, for mitigation proposed to prevent sediment from entering storm sewers.

#### Energy

#### Proposed as Part of the Project

- The project would comply with guidelines of Title 24 of the California Administrative Code.

- A variable-air-volume air conditioning system would control the volume of conditioned air so that the building would maintain a comfortable temperature, efficiently.
- Fluorescent lights with parabolic diffusers would be used to conserve energy and reduce glare. Return air diffuser slots in light fixtures would reduce air conditioning loads by removing part of the heat generated by light fixtures. Whenever possible, office suites would be equipped with individualized light switches, and timeclock operation to conserve electrical energy.
- Natural gas would be used for space and water heating.
- An airside cooler would be used for cooling whenever the outside air is below building temperature.
- A water economizer cycle system using condenser water to generate chilled water would be installed, so that in hot weather the heat exchangers would cool the water without using excessive amounts of electricity.
- The project would incorporate low-flow plumbing to conserve electricity.
- A carbon monoxide monitoring system would control garage ventilation to avoid unnecessary operations of fans.

#### Other Measure(s)

- The sponsor is considering performing a thorough energy audit of the structure's actual energy use after the first year of occupancy and implementing all cost effective alterations to the structure's energy system identified in the audit. Results of the audit would be made available to the City. The decision whether to implement this measure would be made after completion of the building when energy use could be accurately measured and a determination of efficiency of energy consumption could be made. If it is determined that the dollar amount of energy savings that could be achieved through the alterations would cover the cost of installation, then this measure would be implemented by the sponsor.

## Hazards

- An evacuation and emergency response plan would be developed by the project sponsor or building management staff, in consultation with the Mayor's Office of Emergency Services to insure coordination between the City's emergency planning activities and the project's plan and to provide for building occupants in the event of an emergency. The project plan would be reviewed by the Office of Emergency Services and implemented by building management insofar as feasible before issuance by the Department of Public Works of final building permits.
- To expedite implementation of the City's emergency response plan, the project sponsor would prominently post information for building occupants concerning what to do in the event of a disaster.

### E. MANDATORY FINDINGS OF SIGNIFICANCE

|  | <u>Yes</u> | <u>No</u> | <u>Discussed</u> |
|--|------------|-----------|------------------|
| *1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below selfsustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or pre-history? | —          | <u>X</u>  | —                |
| *2) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?  | —          | <u>X</u>  | —                |
| *3) Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)   | <u>X</u>   | —         | <u>X</u>         |
| *4) Would the project cause substantial adverse effects on human beings, either directly or indirectly?  | —          | <u>X</u>  | —                |
| *5) Is there a serious public controversy concerning the possible environmental effect of the project?   | —          | <u>X</u>  | —                |

The project would contribute to cumulative impacts in the areas of transportation and air quality. The EIR will incorporate by reference the analyses for air quality and transportation contained in the Downtown Plan EIR. Those analyses remain current for future and project conditions.



F. DETERMINATION THAT A TIERED EIR IS REQUIRED

In light of the discussion in this Initial Study, a tiered EIR is required for this project pursuant to the requirements of Section 21094(b) as follows:

1. The project would be consistent with the Downtown Plan, policies and ordinances for which a Final EIR (EE81.3) was certified October 18, 1984;
2. The project would be consistent with applicable local land use plans and zoning pursuant to the Downtown Plan and Planning Code, with allowable exceptions; and,
3. Section 21166 does not apply.

G. ON THE BASIS OF THIS INITIAL STUDY

- ☐ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.
- ☐ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers \_\_\_ in the discussion, have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.
- ☒ I find that the proposed project MAY have a significant effect on the environment, and a tiered ENVIRONMENTAL IMPACT REPORT is required.

*Barbara W. Sahm*

Barbara W. Sahm  
Environmental Review Officer

for

Dean L. Macris  
Director of Planning

Date: 3/12/86

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## APPENDIX B: WIND STUDY METHODOLOGY

This summary of wind study methodology is based on studies by Bruce R. White, Ph.D., Associate Professor of Mechanical Engineering at the University of California, Davis. The studies are independent of the University. These reports are available for review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.

### INTRODUCTION

Wind tunnel tests were conducted for winds in the project vicinity in its existing condition, and with the project, in relation to the Downtown Plan wind performance criteria (adopted by the City Planning Commission, November 29, 1984). Wind tunnel measurements were used to predict equivalent mean wind speeds/1/ near the project site. These mean wind speeds were compared to comfort criteria of 11 mph for pedestrian areas and seven mph for sitting areas.

A 1 inch = 50 feet scale model of the downtown San Francisco area surrounding the proposed building for several blocks in all directions was provided by ESA. The model tested four configurations: existing; project plus existing; a 9:1 FAR alternative; and a Downtown Plan Complying alternative.

The model was tested in a wind tunnel that allows testing of natural atmospheric boundary layer flows past surface objects such as buildings and other structures. The tunnel has an overall length of 22 meters (m) (72 feet), a test section of 1.22 m (4 feet) wide by 1.83 m (6 feet) high, and an adjustable false ceiling. The adjustable ceiling and turbulence generators allow speeds within the tunnel to vary from 1 to 4 meters per second (m/s) or 4.8 to 19.3 miles per hour (mph).

The wind tunnel study was divided into two parts: flow visualization and wind-speed measurements. The flow visualization observations were performed by injecting a continuous stream of smoke at various near-surface locations. The subsequent motion of the smoke was recorded, and prevailing wind directions were determined. Wind-speed measurements were made with a hot-wire anemometer, an instrument that directly

related rates of heat transfer to wind speeds by electronic signals. The hot-wire signals are proportional to the magnitude and steadiness of the wind. Both the mean wind speeds and corresponding turbulence intensities were measured. Thus, high wind speeds and gustiness (changes in wind speeds over short periods of time) could be detected. Hot-wire measurements made close to the surface have an inherent uncertainty of  $\pm 5\%$  of the true values. The ratio of near-surface speed to reference wind speed was calculated from the hot-wire measurements.

Twenty-four test locations were studied for three prevailing wind directions (northwesterly, west-northwesterly, and westerly) for the four configurations. These wind conditions are the most common in San Francisco, and are therefore the most representative for evaluations purposes. All hot-wire measurements were taken at the same series of surface points around the building site for the three wind directions and the two cases.

#### Methodology and Assumptions

The wind ordinance associated with the Downtown Plan (Section 148) is defined in terms of equivalent wind speed. This term denotes a one-hour average wind speed (mean velocity), adjusted to include the level of gustiness and turbulence.

The mean wind speeds at street level were determined by a wind tunnel test, and a comparison of the test results with statistically representative records of wind data collected atop the Old Federal Building. Data describing the speed, direction and frequency of occurrence of winds were gathered at the old San Francisco Federal Building, at 50 United Nations Plaza, during the six-year period 1945 to 1950. Hourly measurements have been tabulated for each month (averaged over the six years) in three-hour periods using seven classes of wind speed and 16 compass directions. Analysis of these data shows that during the hours from 6:00 a.m. to 8:00 p.m., about 62% of the winds blow from three of the 16 directions, as follows: Northwest (NW), 10%; West Northwest (WNW), 14%; West (W), 35%; and, all other winds, 36%; calm conditions occur 2% of the time.

Each wind tunnel test measurement results in a ratio that related the speed of ground-level wind to the speed at the reference elevation, in this case the height of the

old San Francisco Building. The wind that is measured is an equivalent wind-speed value which is adjusted to include the level of gustiness or turbulence present.

The frequency with which a particular wind velocity is exceeded at any test location is then calculated by using the measured wind tunnel ratios and a specified ground speed to determine the corresponding reference wind speed for each direction. In general, this gives different reference speeds for each direction (NW, WNW, W, WSW, and Other). The wind data for San Francisco are then used to calculate the percentage of the time each reference speed would be exceeded. The sum of these is the total percentage of time that the specified ground-level wind speed is exceeded. A computer is used to calculate the total percentages for a series of wind speeds until the speed corresponding to the speed exceeded 10% of the time is found. Throughout the following discussion, the wind speeds reported refer to the equivalent wind speeds that would be exceeded 10% of the time.

### Study Results

The results of the wind tunnel study are summarized in Figure B-1, p. A-38, together with the locations of the measurement points.

Wind speeds in the existing setting are from five to 11 mph. The strongest winds occur at the Montgomery/Sacramento intersection one block west of the project site.

The project would result in winds ranging from six to nine mph. The project would cause winds to decrease at 11 of the 24 locations, including both where existing winds exceed nine mph. It would cause an increase at seven of the 24 locations and no change at six locations. The comfort criterion would be met at each location.

The 9:1 FAR alternative model would result in winds from five to 11 mph. The comfort criterion would be met at each location.

### NOTE – Wind study Methodology

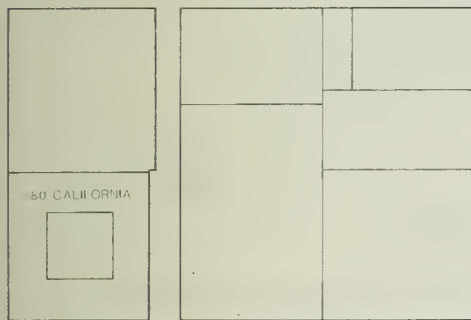
/1/ Equivalent mean wind speed is defined as the mean wind, multiplied by the quantity (1 plus 3 times the turbulence intensity) divided by 1.45.



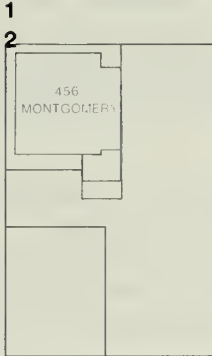
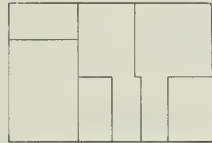
CLAY ST



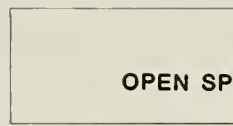
SACRAMENTO ST.



CALIFORNIA ST.

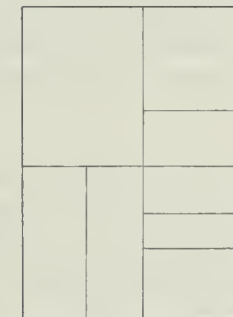
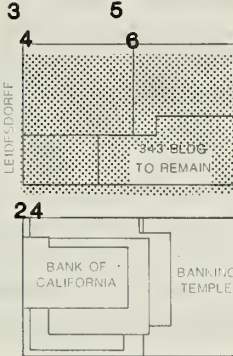


MONTGOMERY ST



OPEN SPACE

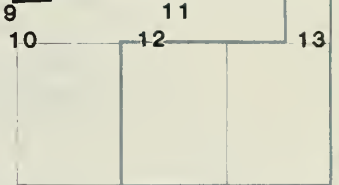
COMMERCIAL



17



16



11



SANSOME ST

19

23 22

BATTERY ST

# PEDESTRIAN-LEVEL WIND SPEEDS (MPH) EXCEEDED 10% OF THE TIME

This table shows the wind speeds (mph) exceeded at pedestrian-level for 10% of the time. The locations are shown above. The comfort criteria (criterion speed) established in Section 148 of the Downtown Plan is that speeds of 11 mph for pedestrian areas and seven mph for public seating areas are not to be exceeded more than 10% of the time.

| Location | Criterion Speed (mph) | Existing | Project | 9:1 FAR |
|----------|-----------------------|----------|---------|---------|
| 1        | 11                    | 10       | 9       | 10      |
| 2        | 11                    | 11       | 9       | 11      |
| 3        | 11                    | 9        | 8       | 8       |
| 4        | 11                    | 8        | 8       | 8       |
| 5        | 11                    | 7        | 8       | 8       |
| 6        | 11                    | 7        | 7       | 8       |
| 7        | 11                    | 8        | 7       | 8       |
| 8        | 11                    | 9        | 9       | 9       |
| 9        | 11                    | 9        | 8       | 9       |
| 10       | 11                    | 9        | 8       | 10      |
| 11       | 11                    | 6        | 6       | 5       |
| 12       | 11                    | 5        | 6       | 6       |
| 13       | 11                    | 8        | 9       | 7       |
| 14       | 7                     | 7        | 6       | 7       |
| 15       | 11                    | 8        | 8       | 9       |
| 16       | 11                    | 8        | 6       | 8       |
| 17       | 11                    | 9        | 8       | 8       |
| 18       | 11                    | 8        | 7       | 7       |
| 19       | 11                    | 7        | 9       | 8       |
| 20       | 11                    | 7        | 8       | 7       |
| 21       | 11                    | 8        | 9       | 8       |
| 22       | 11                    | 9        | 8       | 9       |
| 23       | 11                    | 8        | 8       | 8       |
| 24       | 11                    | 6        | 7       | 6       |



PROJECT SITE



0 FEET 200

343 SANSOME

FIGURE B-1  
NEAR-SURFACE LOCATIONS  
FOR WIND-SPEED MEASUREMENTS

SOURCE: BRUCE R. WHITE, Ph.D.

## APPENDIX C: TRANSPORTATION

TABLE C-1: PASSENGER LEVELS OF SERVICE ON BUS TRANSIT

| <u>Level of Service</u> | <u>Description</u>  | <u>Passengers per Seat</u> |
|-------------------------|---|----------------------------|
| A                       | Level of Service A describes a condition of excellent passenger comfort. Passenger loadings are low with less than half the seats filled. There is little or no restriction on passenger maneuverability. Passenger loading times do not affect scheduled operation.  | 0.00–<br>0.50              |
| B                       | Level of Service B is in the range of passenger comfort with moderate passenger loadings. Passengers still have reasonable freedom of movement on the transit vehicle. Passenger loading times do not affect scheduled operations.  | 0.51–<br>0.75              |
| C                       | Level of Service C is still in the zone of passenger comfort, but loadings approach seated capacity and passenger maneuverability on the transit vehicle is beginning to be restricted. Relatively satisfactory operating schedules are still obtained as passenger loading times are not excessive.  | 0.76–<br>1.00              |
| D                       | Level of Service D approaches uncomfortable passenger conditions with tolerable numbers of standees. Passengers have restricted freedom to move about on the transit vehicle. Conditions can be tolerated for short periods of time. Passenger loadings begin to affect schedule adherence as the restricted freedom of movement for passengers requires longer loading times.  | 1.01–<br>1.25              |
| E                       | Level of Service E passenger loadings approach manufacturers' recommended maximums and passenger comfort is at low levels. Freedom to move about is substantially diminished. Passenger loading times increase as mobility of passengers on the transit vehicle decreases. Scheduled operations is difficult to maintain at this level. Bunching of buses tends to occur which can rapidly cause operations to deteriorate. | 1.26–<br>1.50              |

Continued

TABLE C-1: PASSENGER LEVELS OF SERVICE ON BUS TRANSIT, Continued

| <u>Level of Service</u> | <u>Description</u>  | <u>Passengers per Seat</u> |
|-------------------------|---|----------------------------|
| F                       | Level of Service F describes crush loadings. Passenger comfort and maneuverability is extremely poor. Crush loadings lead to deterioration of scheduled operations through substantially increased loading times. | 1.51–<br>1.60              |

SOURCE: Environmental Science Associates, Inc. from information in the Interim Materials on Highway Capacity, Transportation Research Circular 212, pp. 73–113, Transportation Research Board, 1980.

## PEDESTRIAN ANALYSIS

The pedestrian analysis has been conducted following methods developed by Pushkaren and Zupan in Urban Space for Pedestrians (MIT Press, 1975). Table C-2 shows the relationship between pedestrian flow rates and the flow regimes (categories) used to describe levels of operation.

## INTERSECTION ANALYSIS

The capacity analysis of each intersection at which a turning movement count was made utilized the "critical lane" method. This method of capacity calculation is a summation of maximum conflicting approach lane volumes that gives the capacity of an intersection in vehicles per hour per lane. (This method is explained in detail in an article entitled "Intersection Capacity Measurement Through Critical Movement Summations: A Planning Tool," by Henry B. McInerney and Stephen G. Peterson, January, 1971, Traffic Engineering. This method is also explained in "Interim Materials on Highway Capacity," Transportation Research Circular No. 212, Transportation Research Board, January, 1980). The maximum service volume for Level of Service E was assumed as intersection capacity. A service volume is the maximum number of vehicles that can pass



TABLE C-2 PEDESTRIAN FLOW REGIME

| <u>Flow Regime/a/</u>                               | <u>Choice</u>    | <u>Conflicts</u>             | <u>Flow Rate (p/f/m)/b/</u> |
|---|------------------|------------------------------|-----------------------------|
| Open  | Free Selection   | None                         | less than 0.5               |
| Unimpeded   | Some Selection   | Minor                        | 0.5 to 2.0                  |
| Impeded   | Some Selection   | High Indirect<br>Interaction | 2.1 to 6.0                  |
| Constrained   | Some Restriction | Multiple                     | 6.1 to 10.0                 |
| Crowded   | Restricted       | High Probability             | 10.1 to 14.0                |
| <u>Design Limit – Upper Limit to Desirable Flow</u> |                  |                              |                             |
| Congested   | All Reduced      | Frequent                     | 14.1 to 18.0                |
| Jammed  | Shuffle Only     | Unavoidable                  | Not applicable/c/           |

/a/ Photographs of these conditions are shown in Figure D-2.

/b/ P/F/M = Pedestrians per foot of effective sidewalk width per minute.

/c/ For Jammed Flow, the (attempted) flow rate degrades to zero to complete breakdown.

SOURCE: Urban Space for Pedestrians, MIT Press, 1975, Cambridge, MA.

an intersection during a specified time period in which operating conditions are maintained corresponding to the selected and specified Level of Service. For each intersection analyzed, the existing peak-hour volume was computed and a volume-to-capacity (v/c) ratio calculated by dividing the existing volume by the capacity at Level of Service E.

TABLE C-3: VEHICULAR LEVELS OF SERVICE AT SIGNALIZED INTERSECTIONS

| <u>Level of Service</u> | <u>Description</u>   | <u>Volume/Capacity (v/c) Ratio/a/</u> |
|-------------------------|--|---------------------------------------|
| A                       | Level of Service A describes a condition where the approach to an intersection appears quite open and turning movements are made easily. Little or no delay is experienced. No vehicles wait longer than one red traffic signal indication. The traffic operation can generally be described as excellent.   | less than 0.60                        |
| B                       | Level of Service B described a condition where the approach to an intersection is occasionally fully utilized and some delays may be encountered. Many drivers begin to feel somewhat restricted within groups of vehicles. The traffic operation can generally be described as very good.   | 0.61 – 0.70                           |
| C                       | Level of Service C described a condition where the approach to an intersection is often fully utilized and back-ups may occur behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so. The driver occasionally may have to wait more than one red traffic signal indication. The traffic operation can generally be described as good.                              | 0.71 – 0.80                           |
| D                       | Level of Service D describes a condition of increasing restriction causing substantial delays and queues of vehicles on approaches to the intersection during short times within the peak period. However, there are enough signal cycles with lower demand such that queues are periodically cleared, thus preventing excessive back-ups. The traffic operation can generally be described as fair. | 0.81 – 0.90                           |
| E                       | Capacity occurs at Level of Service E. It represents the most vehicles that any particular intersection can accommodate. At capacity there may be long queues of vehicles waiting upstream of the intersection and vehicles may be delayed up to several signal cycles. The traffic operation can generally as described as poor.  | 0.91 – 1.00                           |

Continued.

TABLE C-3: VEHICULAR LEVELS OF SERVICE AT SIGNALIZED INTERSECTIONS,  
Continued

| <u>Level of Service</u> | <u>Description</u>  | <u>Volume/Capacity (v/c) Ratio/a/</u> |
|-------------------------|---|---------------------------------------|
| F                       | Level of Service F represents a jammed condition. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration. Hence, volumes of vehicles passing through the intersection vary from signal cycle to signal cycle. Because of the jammed condition, this volume would be less than capacity. | 1.01+                                 |

/a/ Capacity is defined as Level of Service E.

SOURCE: San Francisco Department of Public Works, Traffic Division, Bureau of Engineering from Highway Capacity Manual, Highway Research Board, 1965.

#### PARKING SURVEY ANALYSIS OF EXISTING 525 SACRAMENTO GARAGE

Environmental Science Associates conducted a survey of the existing 525 Sacramento garage, to determine the number of parking spaces used for long- and for short-term parking. Long-term parking is identified by the Department of City Planning as any vehicle remaining in a parking space for four hours or more, short-term parking is less than four hours.

The rate structure for the existing garage is:

- 1) short-term: \$2.50 for first half-hour, \$2.00 for each additional hour.
- 2) monthly: \$175/month./1/

The survey was conducted by ESA on Tuesday, May 6, 1986, between the hours of about 9:30 a.m. and 4:30 p.m., a total of seven hours. A total of 210 spaces were noted in the garage, and each space was surveyed about once every hour. License plates were noted each time a space was surveyed to determine if the space was occupied by the same or a different car at each consecutive hour. (Raw survey data is on file and available for public review at the Department of City Planning, Office of Environmental Review, 450 McAllister St.)

During the survey period, a total of 149 spaces were used for long-term parking (four or more hours) and a total of 61 spaces were used for short-term parking (less than four hours). The parking turnover rate per hour, averaged over the seven hour period was 0.18, meaning that 18% of the spaces turned over once an hour.

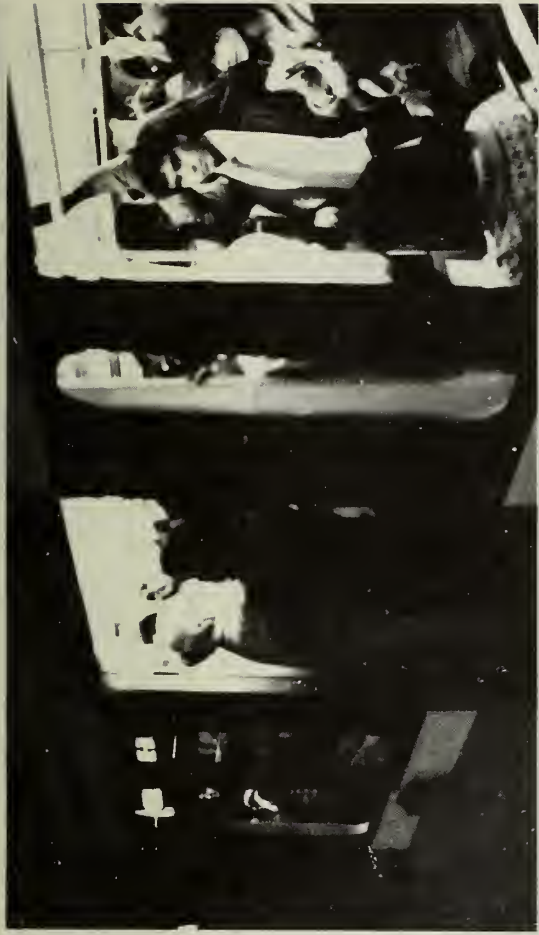
#### NOTE

/1/ Jerry Kelleher, Onorato Garages, telephone conversation, May 8, 1986.





M OCEAN VIEW - CIVIC CENTER STATION  
Wednesday, September 9, 1981 - 8:20 A.M. - Inbound



L TARAVAL - VAN NESS STATION  
Wednesday, September 16, 1981 - 4:50 P.M. - Outbound



14 MISSION - MISSION STREET AND SOUTH VAN NESS AVE.  
Tuesday, September 29, 1981 - 5:45 P.M. - Outbound



N JUDAH - DUBOCE AND CHURCH  
Wednesday, June 8, 1983 - 8:00 A.M. - Inbound

FIGURE C-1  
PHOTOS OF MUNI PEAK LOADING CONDITIONS

SOURCE: ESA





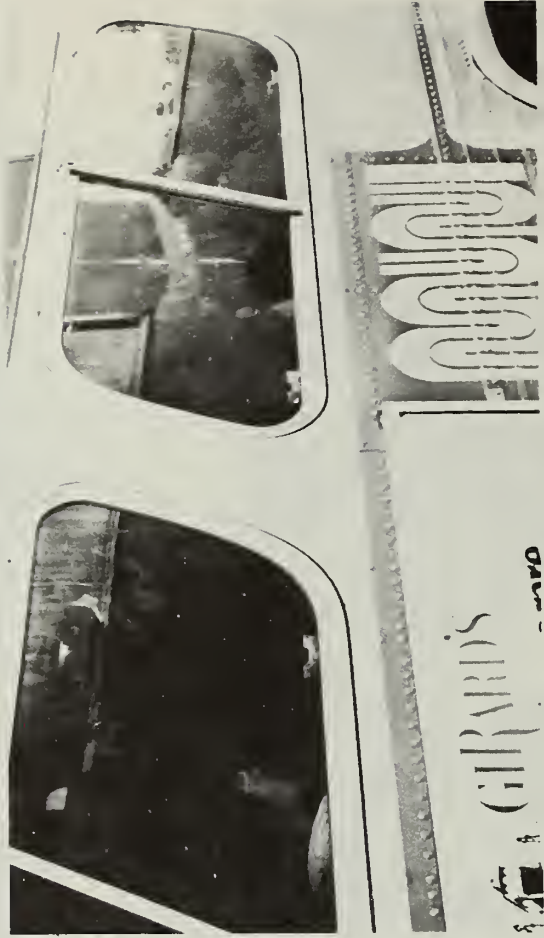
K INGLESIDE - VAN NESS STATION  
Wednesday, September 9, 1981 - 8:00 A.M. - Inbound



38 GEARY - VAN NESS AVE. AND O'FARRELL ST.  
Wednesday, October 21, 1981 - 9:00 A.M. - Inbound



N JUDAH - VAN NESS STATION  
Wednesday, September 16, 1981 - 5:00 P.M. - Outbound



38 GEARY - VAN NESS AVE. AND GEARY BLVD.  
Wednesday, October 21, 1981 - 4:20 P.M. - Outbound

FIGURE C-1 (CONTINUED)  
PHOTOS OF MUNI PEAK LOADING CONDITIONS

SOURCE: ESA



30X MARINA EXPRESS - BAYSHORE AVE. AND ARIETA AVE.  
Wednesday, October 7, 1981 - 8:00 A.M. - Inbound



J CHURCH - CHURCH ST. AND DUBOCE AVE.  
Tuesday, September 29, 1981 - 9:00 A.M. - Inbound

FIGURE C-1 (CONTINUED)  
PHOTOS OF MUNI PEAK LOADING CONDITIONS



**JAMMED FLOW.** Space per pedestrian in this view is about 3.8 sq ft (0.35 m<sup>2</sup>). This is representative of the lower half of the speed-flow curve, where only shuffling movement is possible and even the extremely un-

comfortable maximum flow rate of 25 people per min per ft (82 per m) of walkway width cannot be attained due to lack of space. Photograph by Louis B. Schlivek.



The threshold of **CONGESTED FLOW**. The first eleven people in the view have about 16 sq ft (1.5 m<sup>2</sup>) per person, corresponding to a flow rate of about 15 people per min per ft (49 per m) of walkway width. The beginnings of congestion are evident in bodily conflicts affecting at least three of the walkers, and in blocked opportunities for walking at a normal pace.

The onset of **CROWDED FLOW**, with an average of about 24 sq ft (2.2 m<sup>2</sup>) per person, or a flow rate of about 10 people per min per ft (33 per m) of walkway width. Choice of speed is partially restricted, the probability of conflicts is fairly high, passing is difficult. Voluntary groups of two, of which two can be seen in the picture, are maintained, but cause interference. Note also some overflow into the vehicular roadway in the background.

The midpoint of the **CONSTRAINED FLOW** range, with about 30 sq ft (2.8 m<sup>2</sup>) per person, or a flow rate of about 8 people per min per ft (26 per m) of walkway width. The choice of speed is occasionally restricted, crossing and passing movements are possible, but with interference and with the likelihood of conflicts. The man in the dark suit seems to be able to cross in front of the two women in the foreground quite freely, but in the background near the curb people are having difficulty with passing maneuvers.





The borderline between IMPEDED and UNIMPEDED FLOW, with about 130 sq ft (12 m<sup>2</sup>) per person, or a flow rate of about 2 people per min per ft (6.5 per m) of walkway width. Individuals as well as couples visible in this view have a choice of speed and direction of movement. This rate of flow is recommended for design of outdoor walkways in office districts and other less dense parts of downtown areas.



The midpoint of the IMPEDED FLOW range, with about 75 sq ft (6.9 m<sup>2</sup>) per person, or a flow rate of about 4 people per min per ft (13 per m) of walkway width. Physical conflicts are absent, but pedestrian navigation does require constant indirect interaction with others. This rate of flow is recommended as an upper limit for the design of outdoor walkways in shopping districts and other dense parts of downtown areas.



The uneven nature of UNIMPEDED FLOW. While the people walking in the plaza which is 17 ft (5.2 m) wide, compared to 23 ft (7 m) in the preceding picture have almost 130 sq ft (12 m<sup>2</sup>) per person on the average, the space allocation for the eight individuals in the foreground is closer to 70 sq ft (6.4 m<sup>2</sup>). Thus, indirect interaction with others is still quite frequent in the upper range of UNIMPEDED FLOW.



Lower range of UNIMPEDED movement, approaching OPEN FLOW. About 350 sq ft (32.2 m<sup>2</sup>) per person, or a flow rate of less than 1 person per min per ft (3.3 per m) of walkway width. Complete freedom to select the speed and direction of movement; individuals behave quite independently of each other. For a design standard based solely on pedestrian density, this amount of space can be considered excessive.

## APPENDIX D: AIR QUALITY

## APPENDIX D: SAN FRANCISCO AIR POLLUTANT SUMMARY, 1981 - 1984

STATION: 900 - 23rd Street, San Francisco

| POLLUTANT:                                   | STANDARD        | 1981  | 1982  | 1983  | 1984/i/ |
|--|-----------------|-------|-------|-------|---------|
| <b>OZONE (O<sup>3</sup>) (Oxidant)</b>       |                 |       |       |       |         |
| 1-hour concentration, ppm/a/                 |                 |       |       |       |         |
| Highest hourly average                       | 0.10/b/ 0.12/c/ | 0.07  | 0.08  | 0.13  | 0.10    |
| Number of excesses of state standard         |                 | 0     | 0     | 1     | 1       |
| Expected Annual Excess (federal)/d/          |                 | 0.0   | 0.0   | 0.3   | -       |
| <b>CARBON MONOXIDE (CO)</b>                  |                 |       |       |       |         |
| 1-hour concentration, ppm                    |                 |       |       |       |         |
| Highest hourly average                       | 20 /b,e/        | 8     | 12    | 7     | -       |
| Number of excesses of standard               |                 | 0     | 0     | 0     | -       |
| 8-hour concentration, ppm                    |                 |       |       |       |         |
| Highest 8-hour average                       | 9 /b,c/         | 5.3   | 9.1   | 5.1   | 10.8    |
| Number of excesses of standard               |                 | 0     | 1     | 0     | 1       |
| <b>TOTAL SUSPENDED PARTICULATE (TSP)</b>     |                 |       |       |       |         |
| 24-hour concentration, ug/m <sup>3</sup> /a/ |                 |       |       |       |         |
| Highest 24-hour average                      | 100 /b,f/       | 103   | 126   | 117   | -       |
| Number of excesses of standard/g/            |                 | 1     | 3     | 4     | 5       |
| Annual concentration, ug/m <sup>3</sup>      |                 |       |       |       |         |
| Annual Geometric Mean                        | 60 /b,f/        | 56    | 57    | 55    | 60      |
| Annual excess of standard                    |                 | No    | No    | No    | Yes     |
| <b>LEAD (Pb)</b>                             |                 |       |       |       |         |
| 30-day concentration, ug/m <sup>3</sup>      |                 |       |       |       |         |
| Highest 30-day average                       | 1.5 /b/         | 0.6   | 0.7   | 0.4   | -       |
| Number of excesses of standard               |                 | 0     | 0     | 0     | -       |
| <b>NITROGEN DIOXIDE (NO<sub>2</sub>)</b>     |                 |       |       |       |         |
| 1-hour concentration, ppm                    |                 |       |       |       |         |
| Highest hourly average                       | 0.25 /b/        | 0.11  | 0.13  | 0.13  | 0.14    |
| Number of excesses of standard               |                 | 0     | 0     | 0     | 0       |
| <b>SULFUR DIOXIDE (SO<sub>2</sub>)</b>       |                 |       |       |       |         |
| 24-hour concentration, ppm                   |                 |       |       |       |         |
| Highest 24-hour average                      | 0.05 /b/        | 0.016 | 0.012 | 0.018 | 0.03    |
| Number of excesses of standard/g,h/          |                 | 0     | 0     | 0     | 0       |

/a/ ppm: parts per million. ug/m<sup>3</sup>: micrograms per cubic meter.

/b/ State standard, not to be equaled or exceeded, except for CO standards, which are not to be exceeded.

Continued,



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APPENDIX D: SAN FRANCISCO AIR POLLUTANT SUMMARY, 1981 - 1984, Continued

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/c/ Federal standard, not to be exceeded more than once per year, except for annual standards, which are not to be exceeded.

/d/ Expected Annual Excess is a three-year average of annual excesses of the federal standard.

/e/ The state one-hour CO standard was revised from 35 ppm to 20 ppm in January, 1983. The federal one-hour standard remains 35 ppm.

/f/ The California ARB has redefined the state particulate standard to apply to "inhalable" particulates only (i.e., those which have a diameter less than ten microns). The new standards are 50 ug/m<sup>3</sup> for 24-hour averages and 30 ug/m<sup>3</sup> for the annual geometric mean. No data is currently available on the particle size distribution of the TSP sampled at the San Francisco monitoring station.

/g/ Number of observed excess days (measurements taken once every six days).

/h/ Exceeding the SO<sub>2</sub> standard is a violation only if a concurrent excess of the state ozone or TSP standards occurs at the same station. Otherwise, the federal standard of 0.14 ppm applies.

/i/ 1981-1984 data collected at 900 - 23rd Street

SOURCE: BAAQMD, 1981 - 1983, Air Quality in the San Francisco Bay Area; and California ARB, 1981 - 1984, California Air Quality Data

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## APPENDIX E: TYPICAL NOISE LEVELS

TABLE E-1: TYPICAL NOISE LEVELS

|            | <u>Decibels</u> |  |
|------------|-----------------|--|
|            | 110             | Pile driver (from 50 feet)                   |
| Very Loud  | 100             |  |
|            |                 | Light helicopter take-off (from 125 feet)    |
|            | 90              |  |
|            |                 | Diesel truck (from 50 feet)                  |
|            | 80              |  |
| Loud       |                 | Radio or TV playing in Living Room           |
|            | 70              |  |
|            |                 | Passenger car on city street (from sidewalk) |
|            | 60              |  |
| Quiet      | 50              |  |
|            |                 |  |
|            | 40              |  |
| Very Quiet |                 | Whisper                                      |
|            |                 | Rustle of paper                              |
|            | 30              |  |

SOURCE: Department of City Planning, "A Proposal for Citizen Review: Transportation Noise, Environmental Protection Element of the Comprehensive Plan of San Francisco," August, 1984.





